7. 5 : 76 Ent.

U S DEPOSITORY

UNIVERSITY OF FLORIDA Libraries

CIRCULAR No. 76, REVISED TO FEBRUARY 1, 1910. Issued February 16, 1910.

United States Department of Agriculture,

BUREAU OF ENTOMOLOGY.

L. O. HOWARD, Entomologist and Chief of Bureau.

LIST OF PUBLICATIONS OF THE BUREAU OF ENTOMOLOGY.

Compiled by MABEL COLCORD, *Librarian*.

There has been a demand from librarians, members of this Bureau, and others interested in entomology for a complete list of the publications of the Bureau and of those of the Department of Agriculture in general bearing on the subject and published by members of the Bureau or under its auspices. To supply this demand the following list has been compiled.

Applications for the priced publications mentioned in this list should be addressed to the Superintendent of Documents, Government Printing Office, Washington, D. C. All remittances should be made payable to him and not to the Department of Agriculture, and should be sent by postal money order or New York exchange. Currency may be sent at sender's risk, but postage stamps, foreign money, and uncertified checks will not be accepted.

The Farmers' Bulletins, circulars, separates, and popular summaries are sent free, on application to the Secretary of Agriculture; but applications from residents of foreign countries, to whom the price of these is 6 cents each, including postage, should be made to the Superintendent of Documents, Government Printing Office, Washington, D. C. No charge is made for postage on documents forwarded to points in the United States, Guam, Hawaii, Philippine Islands, or Porto Rico, nor to Canada, Cuba, or Mexico. To other countries the regular rate of postage is charged, and remittances must cover such postage.

Where scientific names of species are given in brackets these do not occur in the titles of the publications, but are inserted for the convenience of those not familiar with the common names.

ANNUAL REPORTS.

[The Division of Entomology was established in 1863 by the appointment of Townend Glover as Entomologist. The annual reports of the Entomologist are bound with those of the Secretary of Agriculture, and for some years have also been issued in independent form, known as author's editions.

Previous to the establishment of the division, articles of entomological interest appeared in the agricultural reports of the Patent Office. These articles are indexed in "The General Index of the Agricultural Reports of the Patent Office for 1837–1861, and of the Department of Agriculture for 1862–1876." [a]]

Report of the Entomologist for 1863. By Townend Glover. (In Annual Report Commissioner of Agriculture for 1863. pp. 561–579.) Price 60 cents. Postage 21 cents.

Report of the Entomologist for 1864. By Townend Glover. (In Annual Report Commissioner of Agriculture for 1864. pp. 540–564.) Price 60 cents. Postage 19 cents.

Report of the Entomologist for 1865. By Townend Glover. (In Annual Report Commissioner of Agriculture for 1865. pp. 33–45.) Price 60 cents. Postage 19 cents.

Report of the Entomologist for 1866. By Townend Glover. (In Annual Report Commissioner of Agriculture for 1866. pp. 27–45.) Price 60 cents. Postage 19 cents.

Report of the Entomologist for 1867. By Townend Glover. (In Annual Report Commissioner of Agriculture for 1867. pp. 58–76, figs. [16].) Price 60 cents. Postage 15 cents.

[Report of the Entomologist for 1868.] By Townend Glover. Title: The food and habits of beetles. (In Annual Report Commissioner of Agriculture for 1868. pp. 78–117, figs. [120].) Price 60 cents. Postage 17 cents.

Report of the Entomologist for 1869. By Townend Glover. (In Annual Report Commissioner of Agriculture for 1869. pp. 60–64.) Price 70 cents. Postage 19 cents.

Report of the Entomologist and Curator of the Museum for 1870. By Townend Glover. (In Annual Report Commissioner of Agriculture for 1870. pp. 65–91, figs. 60.) Price 65 cents. Postage 18 cents.

Report of the Entomologist and Curator of the Museum for 1871. By Townend Glover. (In Annual Report Commissioner of Agriculture for 1871. pp. 69–88, figs. 23.) Price 55 cents. Postage 14 cents.

Report of the Entomologist and Curator of the Museum for 1872. By Townend Glover. (In Annual Report Commissioner of Agriculture for 1872. pp. 112–138, figs. 26.) Out of print.

Report of the Entomologist and Curator of the Museum for 1873. By Townend Glover. (In Annual Report Commissioner of Agriculture for 1873. pp. 152–169, figs. 10.) Price 40 cents. Postage 13 cents.

Report of the Entomologist and Curator of the Museum for 1874. By Townend Glover. (In Annual Report Commissioner of Agriculture for 1874. pp. 122–146, figs. 20.) Out of print.

Report of the Entomologist for 1875. By Townend Glover. (In Annual Report Commissioner of Agriculture for 1875. pp. 114–140, figs. 63.) Price 60 cents. Postage 17 cents.

---

[a] By the Commissioner of Agriculture. Washington: Government Printing Office. 1876. (Now out of print.)

Report of the Entomologist and Curator of the Museum for 1876. By Townend Glover. (In Annual Report Commissioner of Agriculture for 1876. pp. 17–46, figs. 59.) Price 40 cents. Postage 14 cents.

Report of the Entomologist and Curator of the Museum for 1877. By Townend Glover. (In Annual Report Commissioner of Agriculture for 1877. pp. 89–148, pls. 5.) Price 70 cents. Postage 18 cents.

Report of the Entomologist, Charles V. Riley, August 22, 1879. pp. 52+[1], pl. 7. 1879. (Author's edition from the Annual Report of the Commissioner of Agriculture for the year 1878. pp. 207–257, pls. 7.) Out of print. Report of Commissioner for 1878. Price 70 cents. Postage 19 cents.

Report of the Entomologist for 1879. By J. Henry Comstock. (In Annual Report Commissioner of Agriculture for 1879. pp. 185–348, pls. 16.) Price 90 cents. Postage 20 cents.

Report of the Entomologist for 1880. By J. Henry Comstock. pp. iv+235–373+iv, pls. 24. 1881. (Author's edition from the Annual Report of the Commissioner of Agriculture for 1880.) Out of print. Report of Commissioner for 1880. Price $1.20. Postage 27 cents.

Report on insects for the year 1881. By J. Henry Comstock. 1882. pp. 22, pls. XIV–XX. (Author's edition from the Annual Report of the Department of Agriculture for the year 1881. pp. 195–214, pls. XIV–XX.) Out of print.

Report of the Entomologist, Charles V. Riley, for the fiscal year ending June 30, 1882. pp. viii+167, pls. 20. 1882. (Author's edition from the Annual Report of the Department of Agriculture for the year 1881[–82]. pp. 61–214, pls. 20.) Out of print. Report of Commissioner for 1881 and 1882. Price $1.30. Postage 29 cents.

Report of the Entomologist, Charles V. Riley, for the year 1883. pp. v+99–180+5+[2], pls. 13. 1883. (Author's edition from the Annual Report of the Department of Agriculture for 1883.) Out of print. Report of Commissioner for 1883. Price 60 cents. Postage 17 cents.

Report of the Entomologist, Charles V. Riley, for the year 1884. pp. vii+[1]–134+2+ix, pls. 10. 1885. (Author's edition from the Annual Report of the Department of Agriculture for the year 1884.) Out of print. Report of Commissioner for 1884. Price $1. Postage 20 cents.

Report of the Entomologist, Charles V. Riley, for the year 1885. pp. vii+1+137+viii+2, 2 l., pls. 9, 1 map. 1886. (Author's edition from the Annual Report of the Department of Agriculture for the year 1885.) Out of print. Report of Commissioner for 1885. Price 80 cents. Postage 20 cents.

Report of the Entomologist, Charles V. Riley, for the year 1886. pp. v+159–592–ix, pls. 11. 1887. (Author's edition from the Annual Report of the Department of Agriculture for the year 1886.) Out of print. Report of Commissioner for 1886. Price $1. Postage 23 cents.

Report of the Entomologist, Charles V. Riley, for the year 1887. pp. vi+18–179+vi, pls. 8. 1888. (Author's edition from the Annual Report of the Department of Agriculture for the year 1887.) Out of print. Report of Commissioner for 1887. Price $1.20. Postage 23 cents.

Report of the Entomologist, Charles V. Riley, for the year 1888. pp. iv+53–144, pls. 12. 1889. (Author's edition from the Annual Report of the Department of Agriculture for the year 1888.) Out of print. Report of Commissioner for 1888. Price $1. Postage 23 cents.

Report of the Entomologist for the year 1889. [By C. V. Riley.] pp. iv+331–361+iii, pls. 6. [1889?] (Author's edition from the Annual Report of the Department of Agriculture for the year 1889.) Out of print. Report of Secretary for 1889. Price 80 cents. Postage 18 cents.

Report of the Entomologist for 1890. By C. V. Riley. pp. 1+237–264, pls. 7. 1891. (From the Report of the Secretary of Agriculture for 1890.) Out of print. Report of Secretary for 1890. Price $1. Postage 20 cents.

Report of the Entomologist for 1891. By C. V. Riley. pp. i–iii+231–266+ii. 1892. (From the Report of the Secretary of Agriculture for 1891.) Out of print. Report of Secretary for 1891. Price $1. Postage 22 cents.

Report of the Entomologist for 1892. By C. V. Riley. pp. i–iii+153–180+ii, pls. 12. 1893. (From the Report of the Secretary of Agriculture for 1892.) Out of print. Report of Secretary for 1892. Price $1. Postage 22 cents.

Report of the Entomologist for 1893. By C. V. Riley. pp. i–iii+199–226+ii, pls. 4. (From the Report of the Secretary of Agriculture for 1893.) Out of print. Report of Secretary for 1893. Price 80 cents. Postage 19 cents.

Report of the Entomologist for 1894. By L. O. Howard. (In Annual Report Secretary of Agriculture in Message and Documents, 1893–1894. pp. 157–159.) Out of print.

Report of the Entomologist for 1895. By L. O. Howard. (In Annual Report Secretary of Agriculture in Message and Documents, 1895. pp. 153–157.) Out of print.

Report of the Entomologist for the fiscal year ending June 30, 1896. By L. O. Howard. pp. i–iii+89–93. 1896. (From the Report of the Secretary of Agriculture in Message and Documents, 1896.) Out of print.

Report of the Entomologist for 1897. By L. O. Howard. pp. i–ii+111–116. 1897. (From the Report of the Secretary of Agriculture [1897].) Out of print.

Report of the Entomologist for 1898. By L. O. Howard. pp. i–iii+17–25. 1898. (From the Report of the Secretary of Agriculture [1898].) Out of print.

Report of the Entomologist for 1899. By L. O. Howard. pp. i–iii+43–52. 1899. (From the Report of the Secretary of Agriculture [1899].) Out of print.

Report of the Entomologist for 1900. By L. O. Howard. pp. i–ii+27–34. 1900. (From Annual Reports, Department of Agriculture [1900].) Out of print.

Report of the Entomologist for 1901. By L. O. Howard. pp. i–ii+141–150. 1901. (From Annual Reports, Department of Agriculture [1901].) Out of print.

Report of the Acting Entomologist for 1902. By C. L. Marlatt. pp. i–iii+189–207. (From Annual Reports, Department of Agriculture [1902].) Out of print.

Report of the Entomologist for 1903. By L. O. Howard. pp. i–ii+227–243. (From Annual Reports, Department of Agriculture [1903].) Out of print.

Report of the Entomologist for 1904. By L. O. Howard. pp. i–iii+271–289. (From Annual Reports, Department of Agriculture [1904].) Out of print.

Report of the Entomologist for 1905. By L. O. Howard. pp. i–ii+273–302. (From Annual Reports, Department of Agriculture [1905].) Out of print.

Report of the Entomologist for 1906. By L. O. Howard. pp. 36. (From Annual Reports, Department of Agriculture [1906].) Issued Dec. 22, 1906. Out of print.

Report of the Entomologist for 1907. By L. O. Howard. pp. 45. (From Annual Reports, Department of Agriculture [1907].) Issued Jan. 17, 1908. Out of print.

Report of the Entomologist for 1908. By L. O. Howard. pp. 47. (From Annual Reports, Department of Agriculture [1908].) Issued Nov. 9, 1908.

Report of the Entomologist for 1909. By L. O. Howard. pp. 45. (From Annual Reports, Department of Agriculture [1909].) Issued Dec. 2, 1909.

BULLETINS, OLD SERIES.

No. 1. Reports of experiments, chiefly with kerosene, upon insects injuriously affecting the orange tree and the cotton plant, made under the direction of the Entomologist. pp. 62. 1883. Out of print.

Same, second edition. pp. 62. 1883. Out of print.

No. 1. Third edition. pp. 62. 1885. Out of print.

No. 2. Reports of observations on the Rocky Mountain locust [*Melanoplus* (*Caloptenus*) *spretus* Uhl.] and chinch bug [*Blissus leucopterus* Say], together with extracts from the correspondence of the Division on miscellaneous insects. pp. 36. 1883. Out of print.

Same, second edition. pp. 36. 1883. Out of print.

No. 3. Reports of observations and experiments in the practical work of the Division, made under the direction of the Entomologist. pp. 75, pls. 3. 1883. Out of print.

No. 4. Reports of observations and experiments in the practical work of the Division, made under the direction of the Entomologist, together with extracts from correspondence on miscellaneous insects. pp. 102, figs. 4. 1884. Out of print.

No. 5. Descriptions of North American Chalcididæ from the collections of the U. S. Department of Agriculture and of Dr. C. V. Riley, with biological notes. [First paper.] Together with a list of the described North American species of the family. By L. O. Howard. pp. 47. 1885. Out of print.

No. 6. The imported elm leaf-beetle [*Galeruella luteola* Müll. (*Galeruca xanthomelæna* Schrank)]. Its habits and natural history, and means of counteracting its injuries. pp. 18, fig. 1, pl. 1. 1885. Out of print.

Same, second edition. pp. 21, fig. 1, pl. 1. 1891. Price 5 cents. Postage 1 cent.

No. 7. The Pediculi and Mallophaga affecting man and the lower animals. By Herbert Osborn. pp. 56, figs. 42. 1891. Price 10 cents. Postage 3 cents.

No. 8. The periodical Cicada. An account of Cicada septendecim and its tredecim race, with a chronology of all the broods known. By Charles V. Riley. pp. 46, figs. 8. 1885. Out of print.

Same, second edition. pp. 46. 1885. Out of print.

No. 9. The mulberry silk-worm; being a manual of instructions in silk culture. By Charles V. Riley. Sixth revised edition. pp. 65, figs. 29, pls. 2. 1886. (Eds. 1–5 of Bulletin 9 are the same as "Special Report No. 11, Office of the Secretary.") Out of print.

Same, seventh revised edition. pp. vii+65, figs. 29, pls. 2. 1888. Out of print.

No. 10. Our shade trees and their insect defoliators. Being a consideration of the four most injurious species which affect the trees of the Capital, with means of destroying them. By Charles V. Riley. pp. 75, figs. 27. 1887. Out of print.

Same, second revised edition. pp. 75, figs. 27. 1888. Out of print.

No. 11. Reports of experiments with various insecticide substances, chiefly upon insects affecting garden crops, made under the direction of the Entomologist. pp. 34. 1886. Out of print.

No. 12. Miscellaneous notes on the work of the Division of Entomology for the season of 1885, prepared by the Entomologist. pp. 46, pl. 1. 1886. Out of print.

No. 13. Reports of observations and experiments in the practical work of the Division, made under the direction of the Entomologist. pp. 78, figs. 4. 1887. Out of print.

No. 14. Reports of observations and experiments in the practical work of the Division, made under the direction of the Entomologist. pp. 62, figs. 2, pl. 1. 1887. Out of print.

No. 15. The Icerya, or fluted scale, otherwise known as the cottony cushion-scale. [Reprint of some recent articles by the Entomologist, and of a report from the agricultural experiment station, University of California.] pp. 40. 1887. Out of print.

No. 16. The entomological writings of Dr. Alpheus Spring Packard. By Samuel Henshaw. pp. 49. 1887. Out of print.

No. 17. The chinch bug [*Blissus leucopterus* Say]: A general summary of its history, habits, enemies, and of the remedies and preventives to be used against it. By L. O. Howard. pp. 48, figs. 10. 1888. Price 5 cents. Postage 2 cents.

No. 18. The life and entomological work of the late Townend Glover. By Charles Richards Dodge. pp. 68, figs. 5, pl. 1. 1888. Out of print.

No. 19. An enumeration of the published synopses, catalogues, and lists of North American insects; together with other information intended to assist the student of American entomology. By E. A. Schwarz. pp. 77. 1888. Out of print.

No. 20. The root-knot disease of the peach, orange, and other plants in Florida, due to the work of Anguillula. By J. C. Neal. pp. 31, pls. 21. 1889. Out of print.

No. 21. Report of a trip to Australia, made under the direction of the Entomologist, to investigate the natural enemies of the fluted scale [*Icerya purchasi* Mask.]. By Albert Koebele. pp. 32, figs. 16. 1890. Out of print.

Same, revised edition. pp. 32, figs. 16. 1890. Out of print.

No. 22. Reports of observations and experiments in the practical work of the Division, made under the direction of the Entomologist. pp. 110, figs. 2. 1890. Price 10 cents. Postage 4 cents.

No. 23. Reports of observations and experiments in the practical work of the Division, made under the direction of the Entomologist. pp. 83. 1891. Out of print.

No. 24. The bollworm of cotton [*Heliothis obsoleta* Fab. (*H. armigera* Hübn.)]. A report of progress in a supplementary investigation of this insect. By F. W. Mally. pp. 50, figs. 2. 1891. Out of print.

No. 25. Destructive locusts. A popular consideration of a few of the more injurious locusts (or "grasshoppers") of the United States, together with the best means of destroying them. By C. V. Riley. pp. 62, figs. 11, pls. 12, map 1. 1891. Price 15 cents. Postage 3 cents.

No. 26. Reports of observations and experiments in the practical work of the Division, made under the direction of the Entomologist. pp. 95. 1892. Out of print.

No. 27. Reports on the damage by destructive locusts during the season of 1891, made under the direction of the Entomologist. pp. 64. 1892. Out of print.

No. 28. The more destructive locusts of America north of Mexico. By Lawrence Bruner. pp. 40, figs. 21. 1893. Out of print.

No. 29. Report on the boll worm of cotton [*Heliothis obsoleta* Fab. (*H. armiger* Hübn.)]. By F. W. Mally. pp. 73, pls. 2. 1893. Price 5 cents. Postage 3 cents.

No. 30. Reports of observations and experiments in the practical work of the Division, made under the direction of the Entomologist. pp. 67. 1893. Out of print.

No. 31. Catalogue of the exhibit of economic entomology at the World's Columbian Exposition, Chicago, Ill., 1893, made under the direction of the Entomologist. pp. 121. 1893. Price 10 cents. Postage 4 cents.

No. 32. Reports of observations and experiments in the practical work of the Division, made under the direction of the Entomologist. pp. 59. 1894. Out of print.

No. 33. Legislation against injurious insects; a compilation of the laws and regulations in the United States and British Columbia. By L. O. Howard. pp. 46. 1895. Out of print.

BULLETINS, NEW SERIES.

No. 1. The honey bee: A manual of instruction in apiculture. By Frank Benton. pp. 118, figs. 76, pls. 11. 1896. Out of print.

Same, revised edition. pp. 118, figs. 76, pls. 12. 1896. Out of print.

Same, third edition. pp. 118, figs. 76, pls. 12. 1899. Price 15 cents. Postage 5 cents.

Same, 54th Cong., 1st sess., H. Doc. 359, serial No. 3435.

No. 2. Proceedings of the seventh annual meeting of the Association of Economic Entomologists. pp. 100, fig. 1. 1895. Price 10 cents. Postage 4 cents.

No. 3. The San Jose scale [*Aspidiotus perniciosus* Comst.]: Its occurrences in the United States, with a full account of its life history and the remedies to be used

against it. By L. O. Howard and C. L. Marlatt. pp. 80, figs. 8. 1896. Price 10 cents. Postage 3 cents.

No. 4. The principal household insects of the United States. By L. O. Howard and C. L. Marlatt. With a chapter on insects affecting dry vegetable foods. By F. H. Chittenden. pp. 130, figs. 64. 1896. Out of print.

Same, revised edition. pp. 131, figs. 64. 1902 [1899]. Price 10 cents. Postage 5 cents.

No. 5. Insects affecting domestic animals. An account of the species of importance in North America, with mention of related forms occurring on other animals. By Herbert Osborn. pp. 302, figs. 170, pls. 5. 1896. Price 20 cents. Postage 10 cents.

No. 6. Proceedings of the eighth annual meeting of the Association of Economic Entomologists. pp. 100, figs. 5. 1896. Price 10 cents. Postage 4 cents.

No. 7. Some miscellaneous results of the work of the Division of Entomology. Prepared under the direction of L. O. Howard, Entomologist. pp. 87, figs. 44. 1897. Price 10 cents. Postage 3 cents.

No. 8. Some little-known insects affecting stored vegetable products. A collection of articles detailing certain original observations made upon insects of this class. By F. H. Chittenden. pp. 45, figs. 10. 1897. Out of print.

No. 9. Proceedings of the ninth annual meeting of the Association of Economic Entomologists. pp. 87, figs. 2. 1897. Price 10 cents. Postage 4 cents.

No. 10. Some miscellaneous results of the work of the Division of Entomology. Prepared under the direction of L. O. Howard, Entomologist. pp. 99, figs. 19. 1898. Price 10 cents. Postage 4 cents.

No. 11. The gipsy moth in America: A summary account of the introduction and spread of Porthetria dispar in Massachusetts and of the efforts made by the State to repress and exterminate it. By L. O. Howard. pp. 39, figs. 8. 1897. Price 5 cents. Postage 2 cents.

No. 12. The San Jose scale [*Aspidiotus perniciosus* Comst.] in 1896-1897. By L. O. Howard. pp. 31, fig. 1. 1898. Price 5 cents. Postage 2 cents.

No. 13. Recent laws against injurious insects in North America, together with the laws relating to foul brood. Compiled by L. O. Howard. pp. 68. 1898. Price 5 cents. Postage 3 cents.

No. 14. The periodical Cicada: An account of Cicada septendecim, its natural enemies, and the means of preventing its injury, together with a summary of the distribution of the different broods. By C. L. Marlatt. pp. 148, figs. 57, pls. 3. 1898. Price 15 cents. Postage 6 cents.

No. 15. The chinch bug [*Blissus leucopterus* Say]: Its probable origin and diffusion, its habits and development, natural checks and remedial and preventive measures, with mention of the habits of an allied European species. By F. M. Webster. pp. 82, figs. 19. 1898. Out of print. (Superseded by No. 69.)

No. 16. The Hessian fly [*Mayetiola* (*Cecidomyia*) *destructor* Say] in the United States. By Herbert Osborn. pp. 57, figs. 8, pls. 2, map 1. 1898. Price 10 cents. Postage 3 cents.

No. 17. Proceedings of the tenth annual meeting of the Association of Economic Entomologists. pp. 104, figs. 4. 1898. Price 10 cents. Postage 4 cents.

No. 18. Some miscellaneous results of the work of the Division of Entomology. III. Prepared under the direction of L. O. Howard, Entomologist. pp. 101, figs. 17. 1898. Price 10 cents. Postage 4 cents.

No. 19. Some insects injurious to garden and orchard crops. A series of articles dealing with insects of this class. By F. H. Chittenden. pp. 99, figs. 20. 1899. Out of print.

No. 20. Proceedings of the eleventh annual meeting of the Association of Economic Entomologists. pp. 111, figs. 4. 1899. Price 10 cents. Postage 4 cents.

No. 21. Preliminary report on the insect enemies of forests in the Northwest. An account of the results gained from a reconnaissance trip made in the spring and early summer of 1899. By A. D. Hopkins. pp. 27. 1899. Out of print.

No. 22. Some miscellaneous results of the work of the Division of Entomology. IV. Prepared under the direction of L. O. Howard, Entomologist. pp. 109, figs. 28. 1900. Price 10 cents. Postage 4 cents.

No. 23. Some insects injurious to garden crops. A series of articles dealing with insects of this class. By F. H. Chittenden. pp. 92, figs. 23. 1900. Out of print.

No. 24. A list of works on North American entomology. Compiled . . . by Nathan Banks. pp. 95. 1900. Price 10 cents. Postage 4 cents.

No. 25. Notes on the mosquitoes of the United States: Giving some account of their structure and biology, with remarks on remedies. By L. O. Howard. pp. 70, figs. 22. 1900. Price 10 cents. Postage 3 cents.

No. 26. Proceedings of the twelfth annual meeting of the Association of Economic Entomologists. pp. 102, pls. 2. 1900. Price 10 cents. Postage 4 cents.

No. 27. Some insects injurious to the violet, rose, and other ornamental plants. A collection of articles dealing with insects of this class. By F. H. Chittenden. pp. 114, figs. 29, pls. 4. 1901. Out of print.

Same, revised edition. pp. 114, figs. 29, pls. 4. 1901. Price 10 cents. Postage 4 cents.

No. 28. Insect enemies of spruce in the Northeast. A popular account of results of special investigations, with recommendations for preventing losses. . . . By A. D. Hopkins. pp. 80, figs. 2, pls. 16. 1901. Price 10 cents. Postage 5 cents.

No. 29. The fall army worm [*Laphygma frugiperda* S. & A.] and variegated cutworm [*Peridroma margaritosa* Haw. (*saucia* Hübn.)]. By F. H. Chittenden. pp. 64, figs. 11. 1901. Price 5 cents. Postage 3 cents.

No. 30. Some miscellaneous results of the work of the Division of Entomology. V. Prepared under the direction of L. O. Howard, Entomologist. pp. 98, figs. 29, pls. 2. 1901. Price 10 cents. Postage 4 cents.

No. 31. Proceedings of the thirteenth annual meeting of the Association of Economic Entomologists [1901]. pp. 103, figs. 4, pls. 2. 1902. Price 10 cents. Postage 4 cents.

No. 32. Insect enemies of the pine in the Black Hills Forest Reserve. An account of results of special investigations, with recommendations for preventing losses. By A. D. Hopkins. pp. 24, figs. 5, pls. 7. 1902. Price 10 cents. Postage 2 cents.

No. 33. Some insects injurious to vegetable crops. A series of articles dealing with insects of this class. By F. H. Chittenden. pp. 117, figs. 30. 1902. Out of print.

No. 34. The principal insects liable to be distributed on nursery stock. By Nathan Banks. pp. 46, figs. 47. 1902. Price 5 cents. Postage 2 cents.

No. 35. Report on codling-moth [*Carpocapsa pomonella* L.] investigations in the Northwest during 1901. By C. B. Simpson. pp. 29, fig. 1, pls. 5. 1902. Price 10 cents. Postage 2 cents.

No. 36. An index to Bulletins Nos. 1–30 (new series) (1896–1901) of the Division of Entomology. By Nathan Banks. pp. 64. 1902. Price 5 cents. Postage 3 cents.

No. 37. Proceedings of the fourteenth annual meeting of the Association of Economic Entomologists. pp. 127, figs. 2, pl. 1. 1902. Price 10 cents. Postage 5 cents.

No. 38. Some miscellaneous results of the work of the Division of Entomology. VI. Prepared under the direction of the Entomologist. pp. 110, figs. 9, pls. 2. 1902. Price 10 cents. Postage 4 cents.

No. 39. The culture of the mulberry silkworm [*Bombyx mori* L.]. By Henrietta Aiken Kelly. pp. 32, figs. 15. 1903. Out of print.

No. 40. Proceedings of the fifteenth annual meeting of the Association of Economic Entomologists. pp. 124, figs. 6, pls. 2. 1903. Price 10 cents. Postage 5 cents.

No. 41. The codling moth [*Carpocapsa pomonella* L.]. By C. B. Simpson. pp. 105, figs. 19, pls. 16. 1903. Price 15 cents. Postage 5 cents.

No. 42. Some insects attacking the stems of growing wheat, rye, barley, and oats, with methods of prevention and suppression. By F. M. Webster. pp. 62, figs. 15. 1903. Price 5 cents. Postage 3 cents.

No. 43. A brief account of the principal insect enemies of the sugar beet. By F. H. Chittenden. pp. 71, figs. 65. 1903. Price 5 cents. Postage 3 cents.

No. 44. Some miscellaneous results of the work of the Division of Entomology. VII. Prepared under the direction of the Entomologist. pp. 99, figs. 19, pl. 1. 1904. Price 10 cents. Postage 4 cents.

No. 45. The Mexican cotton boll weevil [*Anthonomus grandis* Boh.]. By W. D. Hunter and W. E. Hinds. pp. 116, figs. 6, pls. 16. 1904. Price 25 cents. Postage 6 cents.

No. 46. Proceedings of the sixteenth annual meeting of the Association of Economic Entomologists. pp. 113, fig. 1, pls. 2. 1904. Price 10 cents. Postage 4 cents.

No. 47. Catalogue of the exhibit of economic entomology at the Louisiana Purchase Exposition, St. Louis, Mo., 1904 . . . By E. S. G. Titus and F. C. Pratt. pp. 155. 1904. Out of print.

Same, revised edition. 1904. Price 10 cents. Postage 5 cents.

No. 48. Catalogue of exhibits of insect enemies of forests and forest products at the Louisiana Purchase Exposition, St. Louis, Mo., 1904. By A. D. Hopkins. pp. 56, pls. 22. 1904. Price 15 cents. Postage 4 cents.

No. 49. Report on the habits of the kelep, or Guatemalan cotton-boll-weevil ant. By O. F. Cook. pp. 15. 1904. Price 5 cents. Postage 1 cent.

No. 50. The cotton bollworm [*Heliothis obsoleta* Fab.]. By A. L. Quaintance and C. T. Brues. pp. 155, figs. 27, pls. 25, map 1. 1905. Price 25 cents. Postage 8 cents.

No. 51. The Mexican cotton boll weevil [*Anthonomus grandis* Boh.]. A revision and amplification of Bulletin 45, to include the most important observations made in 1904. By W. D. Hunter and W. E. Hinds. pp. 181, figs. 8, pls. 23. 1905. Price 15 cents. Postage 8 cents.

Same, 58th Cong., 3d sess., H. Doc. 383.

No. 52. Proceedings of the seventeenth annual meeting of the Association of Economic Entomologists. pp. 123, figs. 7. 1905. Price 10 cents. Postage 4 cents.

No. 53. Catalogue of the exhibit of economic entomology at the Lewis and Clark Centennial Exposition, Portland, Oregon, 1905 . . . By Rolla P. Currie. pp. 127. 1905. Price 10 cents. Postage 5 cents.

No. 54. Some miscellaneous results of the work of the Bureau of Entomology. VIII. Prepared under the direction of the Entomologist. pp. 99, figs. 20, pls. 4. 1905. Price 10 cents. Postage 4 cents.

No. 55. The rearing of queen bees. By E. F. Phillips. pp. 32, figs. 17. 1905. Price 5 cents. Postage 2 cents.

No. 56. The Black Hills beetle [*Dendroctonus ponderosæ* Hopk.], with further notes on its distribution, life history, and methods of control. By A. D. Hopkins. pp. 24, figs. 6, pls. 2. 1905. Price 5 cents. Postage 2 cents.

No. 57. Report on miscellaneous cotton insects in Texas. By E. Dwight Sanderson. pp. 63, figs. 33, pl. 1. 1906. Price 5 cents. Postage 3 cents.

No. 58, Part I. Some insects injurious to forests. The locust borer [*Cyllene robiniæ* Forst.] By A. D. Hopkins. pp. iv+1–16, figs. 1–6, pl. I. June 13, 1906. Price 5 cents. Postage 1 cent.

24488—Cir. 76—10——2

No. 58, Part II. Some insects injurious to forests. The western pine-destroying bark-beetle [*Dendroctonus brevicomis* Lec.]. By J. L. Webb. pp. vi+17–30, figs. 7–12, pls. II–III. August 18, 1906. Price 10 cents. Postage 2 cents.

No. 58, Part III. Some insects injurious to forests. Additional data on the locust borer [*Cyllene robiniæ* Forst.]. By A. D. Hopkins. pp. iv+31–40. Issued March 5, 1907. Price 5 cents. Postage 1 cent.

No. 58, Part IV. Some insects injurious to forests. The southern pine sawyer [*Monohammus titillator* Fab.]. By J. L. Webb, pp. vi+41–56, figs. 13–24. Issued November 10, 1909. Price 5 cents. Postage 2 cents.

No. 58, Part V. Some insects injurious to forests. Insect depredations in North American forests and practical methods of prevention and control. By A. D. Hopkins. pp. vi+57–101. Issued December 4, 1909. Price 10 cents. Postage 2 cents.

No. 59. Proliferation as a factor in the natural control of the Mexican cotton boll weevil. By W. E. Hinds. pp. 45, pls. 6. August 27, 1906. Price 15 cents. Postage 3 cents.

No. 60. Proceedings of the eighteenth annual meeting of the Association of Economic Entomologists. pp. 206, figs. 10, pls. 3. Issued September 22, 1906. Price 20 cents. Postage 7 cents.

No. 61. The laws in force against injurious insects and foul brood in the United States. Compiled by L. O. Howard and A. F. Burgess. pp. 222. Issued November 5, 1906. Price 25 cents. Postage 7 cents.

No. 62. The San Jose or Chinese scale [*Aspidiotus perniciosus* Comst.]. By C. L. Marlatt. pp. 89, figs. 12, pls. 9. Issued December 5, 1906. Price 25 cents. Postage 4 cents.

No. 63, Part I. Papers on the cotton boll weevil and related and associated insects. Hibernation and development of the cotton boll weevil [*Anthonomus grandis* Boh.]. By E. Dwight Sanderson. pp. iv+1–38, figs. 1–6. Issued January 15, 1907. Price 5 cents. Postage 2 cents.

No. 63, Part II. Papers on the cotton boll weevil and related and associated insects. Notes on the biology of certain weevils related to the cotton boll weevil. By W. Dwight Pierce. pp. ii+39–44, pl. I. Issued February 5, 1907. Price 5 cents. Postage 1 cent.

No. 63, Part III. Papers on the cotton boll weevil and related and associated insects. An ant enemy [*Solenopsis geminata* Fab., var. *xyloni* McC.] of the cotton boll weevil. By W. E. Hinds. pp. iv+45–48, fig. 7. Issued February 5, 1907. Price 5 cents. Postage 1 cent.

No. 63, Part IV. Papers on the cotton boll weevil and related and associated insects. A predatory bug [*Apiomerus spissipes* Say] reported as an enemy of the cotton boll weevil. By A. C. Morgan. pp. iv+49–54, figs. 8–9. Issued February 8, 1907. Price 5 cents. Postage 1 cent.

No. 63, Part V. Papers on the cotton boll weevil and related and associated insects. Notes on the pepper weevil [*Anthonomus eugenii* Cano (*æneotinctus* Champ.)]. By F. C. Pratt. pp. iv+55–58, fig. 10, pl. II. Issued February 9, 1907. Price 5 cents. Postage 1 cent.

No. 63, Part VI. Papers on the cotton boll weevil and related and associated insects. The strawberry weevil in the south-central States in 1905 [*Anthonomus signatus* Say]. By A. W. Morrill. pp. iv+59–62. Issued January 22, 1907. Price 5 cents. Postage 1 cent.

No. 63, Part VII. Papers on the cotton boll weevil and related and associated insects. The cotton stalk-borer [*Ataxia crypta* Say]. By A. C. Morgan. pp. iv+63–66, pl. III. Issued February 9, 1907. Price 5 cents. Postage 1 cent.

No. 63–Sup. Papers on the cotton boll weevil [*Anthonomus grandis* Boh.] and related and associated insects. Contents and index. pp. x+67–71. Issued July 17, 1909. Price 5 cents. Postage 1 cent.

No. 63. Papers on the cotton boll weevil [*Anthonomus grandis* Boh.] and related and associated insects. pp. viii+71, figs. 10, pls. 3. [Issued in 7 parts, January–February, 1907.] Issued [September 20], 1909. Price 15 cents. Postage 4 cents.

No. 64, Part I. Some miscellaneous results of the work of the Bureau of Entomology. IX. The Mexican conchuela in western Texas in 1905 [*Pentatoma ligata* Say]. By A. W. Morrill. pp. ii+1-14, figs. 1-2, pl. I. Issued April 2, 1907. Price 5 cents. Postage 1 cent.

No. 64, Part II. Some miscellaneous results of the work of the Bureau of Entomology. IX. Notes on the economic importance of sowbugs. By W. Dwight Pierce. pp. iv+15-22, pl. II. Issued April 2, 1907. Price 5 cents. Postage 1 cent.

No. 64, Part III. Some miscellaneous results of the work of the Bureau of Entomology. IX. Notes on "Punkies" [*Ceratopogon* spp.]. By F. C. Pratt. pp. ii+23-28, figs. 3-6. Issued April 2, 1907. Price 5 cents. Postage 1 cent.

No. 64, Part IV. Some miscellaneous results of the work of the Bureau of Entomology. IX. An injurious North American species of Apion [*Apion griseum* Sm.] with notes on related forms. By F. H. Chittenden. pp. ii+29-32, figs. 7. Issued January 14, 1908. Price 5 cents. Postage 1 cent.

No. 64, Part V. Some miscellaneous results of the work of the Bureau of Entomology. IX. Insects injurious to the loco weeds. By F. H. Chittenden. pp. ii+33-42, figs. 8-14. Issued May 29, 1908. Price 5 cents. Postage 1 cent.

No. 64, Part VI. Some miscellaneous results of the work of the Bureau of Entomology. IX. The greenhouse thrips [*Heliothrips hæmorrhoidalis* Bouché]. By H. M. Russell. pp. ii+43-60, figs. 15-17. Issued August 4, 1909. Price 5 cents. Postage 1 cent.

No. 64, Part VII. Some miscellaneous results of the work of the Bureau of Entomology. IX. New breeding records of the coffee-bean weevil [*Araecerus fasciculatus* De Geer]. By E. S. Tucker. pp. iv+61-64, fig. 18, pl. III. Issued August 5, 1909. Price 5 cents. Postage 1 cent.

No. 65. The tobacco thrips, a new and destructive enemy of shade-grown tobacco [*Euthrips nicotianæ* Hinds]. By W. A. Hooker. pp. 24, figs. 2, pls. 2. Issued April 19, 1907. Price 10 cents. Postage 2 cents.

No. 66, Part I. Some insects injurious to truck crops. The asparagus miner [*Agromyza simplex* Loew]. Notes on the asparagus beetles [*Crioceris asparagi* L. and *C. 12-punctata* L.]. By F. H. Chittenden. pp. iv+1-10, figs. 1-2. Issued March 16, 1907. Price 5 cents. Postage 1 cent.

No. 66, Part II. Some insects injurious to truck crops. The water-cress sowbug [*Mancasellus brachyurus* Harger]. The water-cress leaf-beetle [*Phædon æruginosa* Suffr.]. By F. H. Chittenden. pp. iv+11-20, figs. 3-5. Issued April 23, 1907. Price 5 cents. Postage 1 cent.

No. 66, Part III. Some insects injurious to truck crops. The cranberry spanworm [*Cleora pampinaria* Guen.]. The striped garden caterpillar [*Mamestra legitima* Grote]. By F. H. Chittenden. pp. iv+21-32, figs. 6-7. Issued August 31, 1907. Price 5 cents. Postage 1 cent.

No. 66, Part IV. Some insects injurious to truck crops. The leafhoppers of the sugar beet and their relation to the "curly-leaf" condition. By E. D. Ball. pp. iv.+33-52, pls. I-IV. Issued January 27, 1909. Price 10 cents. Postage 2 cents.

No. 66, Part V. Some insects injurious to truck crops. The semitropical army worm [*Prodenia eridania* Cram.] By F. H. Chittenden and H. M. Russell. pp. ii+53-70, figs. 8-11. Issued January 28, 1909. Price 5 cents. Postage 1 cent.

No. 66, Part VI. Some insects injurious to truck crops. The hop flea-beetle. [*Psylliodes punctulata* Melsh.] By F. H. Chittenden. pp. iv+71-92, figs. 12-19, pls. V-VII. Issued May 8, 1909. Price 10 cents. Postage 2 cents.

No. 66, Part VII. Some insects injurious to truck crops. Miscellaneous notes on truck-crop insects. By F. H. Chittenden. pp. ii+93–97. Issued July 19, 1909. Price 5 cents. Postage 1 cent.

No. 67. Proceedings of the nineteenth annual meeting of the Association of Economic Entomologists. pp. 145, figs. 7, pl. 1. Issued November 25, 1907. Price 20 cents. Postage 5 cents.

No. 68, Part I. Papers on deciduous fruit insects and insecticides. The pear thrips [*Euthrips pyri* Daniel]. By Dudley Moulton. pp. iv+1–16, figs. 1–8, pls. I–II. Issued June 10, 1907. Out of print.

Same, revised edition. pp. iv+1–16, figs. 1–8, pls. I–II. Issued September 20, 1909. Price 10 cents. Postage 2 cents.

No. 68, Part II. Papers on deciduous fruit insects and insecticides. The spring canker-worm [*Paleacrita vernata* Peck]. By A. L. Quaintance. pp. ii+17–22, pls. III–IV. Issued July 6, 1907. Price 5 cents. Postage 1 cent.

No. 68, Part III. Papers on deciduous fruit insects and insecticides. The trumpet leaf-miner of the apple [*Tischeria malifoliella* Clemens]. By A. L. Quaintance. pp. iv+23–30, fig. 9, pl. V. Issued October 15, 1907. Price 5 cents. Postage 1 cent.

No. 68, Part IV. Papers on deciduous fruit insects and insecticides. The lesser peach borer [*Synanthedon pictipes* G. & R.]. By A. A. Girault. pp. ii+31–48, fig. 10, pl. VI. Issued October 17, 1907. Price 5 cents. Postage 2 cents.

No. 68, Part V. Papers on deciduous fruit insects and insecticides. The lesser apple worm [*Enarmonia prunivora* Walsh]. By A. L. Quaintance. pp. ii+49–60, fig. 11, pl. VII. Issued January 8, 1908. Price 5 cents. Postage 1 cent.

No. 68, Part VI. Papers on deciduous fruit insects and insecticides. Grape root-worm [*Fidia viticida* Walsh] investigations in 1907. By Fred Johnson. pp. ii+61–68, pls. VIII–IX. Issued April 24, 1908. Price 5 cents. Postage 1 cent.

No. 68, Part VII. Papers on deciduous fruit insects and insecticides. Demonstration spraying for the codling moth. pp. ii+69–76. Issued April 29, 1908. Price 5 cents. Postage 1 cent.

No. 68, Part VIII. Papers on deciduous fruit insects and insecticides. The grape-leaf skeletonizer [*Harrisina americana* Guér.]. By P. R. Jones. pp. ii+77–90, figs. 12–17. Issued January 20, 1909. Price 5 cents. Postage 1 cent.

No. 68, Part IX. Papers on deciduous fruit insects and insecticides. The peach-tree barkbeetle [*Phlœotribus liminaris* Harr.]. By H. F. Wilson. pp. iv+91–108, figs. 18–20, pls. X–XI. Issued February 11, 1909. Price 5 cents. Postage 2 cents.

No. 68–Sup. Papers on deciduous fruit insects and insecticides. Contents and index. pp. viii+109–117. Issued September 20, 1909. Price 5 cents. Postage 1 cent.

No. 68. Papers on deciduous fruit insects and insecticides. pp. viii+117, figs. 20, pls. 11. [Issued in 9 parts, June, 1907–February, 1909.] Issued [November 2], 1909. Price 25 cents. Postage 6 cents.

No. 69. The chinch bug [*Blissus leucopterus* Say]. By F. M. Webster. pp. 95, figs. 19. Issued June 21, 1907. Price 15 cents. Postage 4 cents.

No. 70. Reports of the meeting of inspectors of apiaries, San Antonio, Tex., November 12, 1906. pp. 79, pl. 1 (col.). Issued June 17, 1907. Out of print.

No. 71. The periodical cicada [*Tibicen septendecim* L.]. By C. L. Marlatt. pp. 181, front. (col.), figs. 68, pls. 6. Issued July 18, 1907. Price 40 cents. Postage 9 cents.

No. 72. Information concerning the North American fever tick [*Margaropus* (*Boophilus*) *annulatus* Say], with notes on other species. By W. D. Hunter and W. A. Hooker. pp. 87, figs. 13, pls. 4. Issued November 2, 1907. Price 15 cents. Postage 4 cents.

No. 73. Studies of parasites of the cotton boll weevil [*Anthonomus grandis* Boh.] By W. Dwight Pierce. pp. 63, figs. 6, pls. 3. Issued January 21, 1908. Price 10 cents. Postage 3 cents.

No. 74. Some factors in the natural control of the Mexican cotton boll weevil [*Anthonomus grandis* Boh.] By W. E. Hinds. pp. 79, figs. 2, pls. 4. Issued December 14, 1907. Price 15 cents. Postage 4 cents.

No. 75, Part I. Miscellaneous papers on apiculture. Production and care of extracted honey. By E. F. Phillips. Methods of honey testing for bee keepers. By C. A. Browne. pp. ii+1–18. Issued December 19, 1907. Price 5 cents. Postage 1 cent.

No. 75, Part II. Miscellaneous papers on apiculture. Wax moths [*Galleria mellonella* L. and *Achroia grisella* Fab.] and American foul brood. By E. F. Phillips. pp. ii+19–22, pls. I–III. Issued December 31, 1907. Price 5 cents. Postage 1 cent.

No. 75, Part III. Miscellaneous papers on apiculture. Bee diseases in Massachusetts. By Burton N. Gates. pp. ii+23–32, pl. IV (folded map). Issued June 30, 1908. Price 5 cents. Postage 1 cent.

No. 75, Part IV. Miscellaneous papers on apiculture. The relation of the etiology (cause) of bee diseases to the treatment. By G. F. White. pp. ii+33–42. Issued December 26, 1908. Price 5 cents. Postage 1 cent.

No. 75, Part V. Miscellaneous papers on apiculture. A brief survey of Hawaiian bee keeping. By E. F. Phillips. pp. ii+43–58, pls. V–X. Issued January 19, 1909. Price 15 cents. Postage 2 cents.

No. 75, Part VI. Miscellaneous papers on apiculture. The status of apiculture in the United States. By E. F. Phillips. pp. ii+59–80. Issued January 25, 1909. Price 5 cents. Postage 1 cent.

No. 75, Part VII. Miscellaneous papers on apiculture. Bee keeping in Massachusetts. By Burton N. Gates. pp. ii+81–109, figs. 2. Issued May 24, 1909. Price 5 cents. Postage 2 cents.

No. 76. Fumigation for the citrus white fly, as adapted to Florida conditions. By A. W. Morrill. pp. 73, figs. 11, pls. 7. Issued October 31, 1908. Price 15 cents. Postage 4 cents.

No. 77. Hibernation of the Mexican cotton boll weevil [*Anthonomus grandis* Boh.]. By W. E. Hinds and W. W. Yothers, under the direction of W. D. Hunter. pp. 106, figs. 9, pls. 10. Issued October 18, 1909. Price 25 cents. Postage 6 cents.

No. 78. Economic loss to the people of the United States through insects that carry disease. By L. O. Howard. pp. 40. Issued March 18, 1909. Out of print.

Same, revised edition. pp. 40. Issued May 27, 1909. Price 10 cents. Postage 2 cents.

No. 79. Fumigation investigations in California. By R. S. Woglum. [Chemical work performed by the Miscellaneous Division of the Bureau of Chemistry.] pp. 73, figs. 28. Issued June 11, 1909. Price 15 cents. Postage 3 cents.

No. 80, Part I. Papers on deciduous fruit insects and insecticides. The codling moth [*Carpocapsa pomonella* L.] in the Ozarks. By E. L. Jenne. pp. iv+1–32, figs. 1–8. Issued June 26, 1909. Price 10 cents. Postage 1 cent.

No. 80, Part II. Papers on deciduous fruit insects and insecticides. The cigar case-bearer [*Coleophora fletcherella* Fernald]. By A. G. Hammar. pp. iv+33–44, figs. 9–12, pls. I–II. Issued June 30, 1909. Price 10 cents. Postage 2 cents.

No. 80, Part III. Papers on deciduous fruit insects and insecticides. Additional observations on the lesser apple worm [*Enarmonia prunivora* Walsh]. By S. W. Foster and P. R. Jones. pp. iv+45–50, pl. III. Issued August 12, 1909. Price 5 cents. Postage 1 cent.

No. 80, Part IV. Papers on deciduous fruit insects and insecticides. The pear thrips [*Euthrips pyri* Daniel] and its control. By Dudley Moulton. pp. iv+51–66, figs. 13–17, pls. IV–VI. Issued September 1, 1909. Price 10 cents. Postage 2 cents.

No. 81. A list of works on North American entomology. Compiled for the use of students and other workers as well as for those about to begin the collection and study of insects. By Nathan Banks. pp. 120. Issued January 17, 1910. Price 15 cents. Postage 4 cents.

No. 82, Part I. Some insects injurious to truck crops. The Colorado potato beetle [*Leptinotarsa decemlineata* Say] in Virginia in 1908. By C. H. Popenoe. [In cooperation with the Virginia Truck Experiment Station.] pp. iv+1–8, pls. I–II. Issued July 28, 1909. Price 5 cents. Postage 1 cent.

No. 82, Part II. Some insects injurious to truck crops. The parsnip leaf-miner [*Acidia fratria* Loew]. The parsley stalk weevil [*Listronotus latiusculus* Boh.]. The celery caterpillar [*Papilio polyxenes* Fab.]. By F. H. Chittenden. pp. iv+9–24, figs. 1–6. Issued November 30, 1909. Price 5 cents. Postage 1 cent.

No. 82, Part III. Some insects injurious to truck crops. The Lima-bean pod-borer [*Etiella zinckenella* Treit.]. The yellow-necked flea-beetle [*Disonycha mellicollis* Say]. By F. H. Chittenden. pp. iv+25–32, fig. 7. Issued December 28, 1909. Price 5 cents. Postage 2 cents.

No. 83, Part I. Practical information on the scolytid beetles of North American forests. I. Barkbeetles of the genus Dendroctonus. By A. D. Hopkins. pp. xvi+1–169, figs. 1–102, pls. I–II. Issued October 11, 1909. Price 25 cents. Postage 7 cents.

No. 84. Fumigation of apples for the San Jose scale [*Aspidiotus perniciosus* Comst.]. By A. L. Quaintance. pp. 43, figs. 3, pls. 2 (col.). Issued September 30, 1909. Price 20 cents. Postage 3 cents.

No. 85, Part I. Papers on cereal and forage insects. The lesser clover-leaf weevil [*Phytonomus nigrirostris* Fab.]. By F. M. Webster. pp. iv+1–12, figs. 1–8. Issued November 18, 1909. Price 5 cents. Postage 1 cent.

No. 85, Part II. Papers on cereal and forage insects. The slender seed-corn ground-beetle [*Clivina impressifrons* Lec.]. By W. J. Phillips. pp. iv+13–28, figs. 8–13. Issued November 30, 1909. Price 5 cents. Postage 2 cents.

CIRCULARS, FIRST SERIES.

[NOTE.—The number published in this series exceeded 40, nearly all being circular letters, of which Nos. 1, 18, and 22 are the only ones known to exist.]

No. 1. [Relating to silk-worm eggs.] n. d. (Circ.) Out of print.

No. 18. [Establishment of the branch of economic ornithology.] July 1, 1885. (Circ.) Out of print.

No. 22. [Bee culture.] July 28, 1885. (Circ.) Out of print.

CIRCULARS, SECOND SERIES.

No. 1. Condensed information concerning some of the more important insecticides. pp. 7. May, 1891. Out of print.

No. 2. The hop plant-louse [*Phorodon humuli* Schr.] and the remedies to be used against it. pp. 7, figs. 5, pl. 1. June, 1891.

No. 3. An important enemy to fruit trees. The San Jose scale [*Aspidiotus perniciosus* Comst.]: Its appearance in the eastern United States; measures to be taken to prevent its spread and to destroy it. By L. O. Howard. pp. 10, figs. 5. April 4, 1893. Out of print.

No. 4. The army worm (*Leucania unipuncta* Haw.). By L. O. Howard. pp. 5, figs. 3. June 16, 1894. Out of print.

No. 5. The carpet beetle or "buffalo moth" (*Anthrenus scrophulariæ* L.). By L. O. Howard. pp. 4, fig. 1. September 8, 1894. Out of print.

No. 5. Revised edition. pp. 4, fig. 1. Issued August 10, 1908.

No. 6. The Mexican cotton-boll weevil (*Anthonomus grandis* Boh.). By L. O. Howard. pp. 5, figs. 3. April 2, 1895.

Same, Spanish edition. pp. 6, figs. 2.

No. 7. The pear-tree psylla (*Psylla pyricola* Foerst.). By C. L. Marlatt. pp. 8, figs. 6. May 1, 1895.

No. 8. The imported elm leaf beetle (*Galerucella luteola* Müll.; *Galeruca xanthomelæna* Schrank). By C. L. Marlatt. pp. 4, fig. 1. May 23, 1895. Out of print.

Same, revised edition. pp. 6, fig. 1. Issued September 22, 1908.

No. 9. Cankerworms [*Paleacrita vernata* Peck and *Alsophila* (*Anisopteryx*) *pometaria* Harr.]. By D. W. Coquillett. pp. 4, figs. 4. May 24, 1895.

No. 10. The Harlequin cabbage bug, or calico back (*Murgantia histrionica* Hahn). By L. O. Howard. pp. 2, fig. 1. May 24, 1895. Out of print. (Superseded by No. 103.)

No. 11. The rose chafer [*Macrodactylus subspinosus* Fab.]. By F. H. Chittenden. pp. 4, fig. 1. May 21, 1895. Out of print.

Same, revised. pp. 4, fig. 1. Issued July 6, 1909.

No. 12. The Hessian fly (*Cecidomyia destructor* Say). By C. L. Marlatt. pp. 4. July 26, 1895. Out of print.

Same, revised edition. pp. 4. April 13, 1900. Out of print. (Superseded by No. 70.)

No. 13. Mosquitoes and fleas. By L. O. Howard. pp. 4. February 1, 1896. Out of print.

Same, revised edition. November 15, 1897. Out of print. (Superseded in part by No. 108.)

No. 14. (Revision of No. 6.) The Mexican cotton-boll weevil (*Anthonomus grandis* Boh.). By L. O. Howard. pp. 8, figs. 5. February 12, 1896. Out of print.

Same, Spanish edition. pp. 8, figs. 5. May 18, 1896. Out of print.

No. 15. General work against insects which defoliate shade trees in cities and towns. By L. O. Howard. pp. 4. March 6, 1896. (In advance from an article entitled "The shade-tree insect problem in the eastern United States," to be published in the Yearbook of the Department for 1895.) Out of print.

No. 16. The larger corn stalk-borer (*Diatræa saccharalis* Fab.). By L. O. Howard. pp. 3, figs. 3. August 13, 1896.

No. 17. The peach-tree borer (*Sannina exitiosa* Say). By C. L. Marlatt. pp. 4, fig. 1. September 30, 1896. Out of print. (Superseded by No. 54.)

No. 18. (Revision of No. 14.) The Mexican cotton-boll weevil (*Anthonomus grandis* Boh.). By L. O. Howard. pp. 8, figs. 5. February 4, 1897.

Same, Spanish edition. pp. 10. Out of print.

Same, German edition. pp. 11. Out of print.

No. 19. The clover mite (*Bryobia pratensis* Garman). By C. L. Marlatt. pp. 4, fig. 1. March 5, 1897. Out of print.

Same, second edition. pp. 4, fig. 1. July 19, 1897.

No. 20. The woolly aphis of the apple (*Schizoneura lanigera* Hausm.). By C. L. Marlatt. pp. 6, figs. 2. March 15, 1897. Out of print.

Same, revised edition. pp. 6, figs. 2. June 23, 1908.

No. 21. The strawberry weevil (*Anthonomus signatus* Say). By F. H. Chittenden. pp. 7, figs. 4. March 18, 1897. Out of print.

Same, revised edition. pp. 10, figs. 5. Issued September 19, 1908.

No. 22. The periodical cicada in 1897. By E. A. Schwarz. pp. 4. May 1, 1897.

No. 23. The buffalo tree-hopper (*Ceresa bubalus* Fab.). By C. L. Marlatt. pp. 4, figs. 2. May 10, 1897.

No. 24. The two-lined chestnut borer (*Agrilus bilineatus* Weber). By F. H. Chittenden. pp. 8, fig. 1. July 14, 1897. Out of print.

Same, revised edition. pp. 7, fig. 1. Issued January 20, 1909.

No. 25. The ox warble (*Hypoderma lineata* Villers). By C. L. Marlatt. pp. 10, figs. 10. July 19, 1897.

No. 26. The pear slug (*Eriocampoides limacina* Retzius). By C. L. Marlatt. pp. 7, figs. 4. August 28, 1897.

No. 27. The Mexican cotton-boll weevil in 1897. By L. O. Howard. pp. 7. December 31, 1897. Out of print.

No. 28. The box-elder plant-bug (*Leptocoris trivittatus* Say). By L. O. Howard. pp. 3, fig. 1, January 8, 1898.

No. 29. The fruit-tree bark-beetle (*Scolytus rugulosus* Ratz.). By F. H. Chittenden. pp. 8, figs. 5. March 25, 1898. Out of print.

Same, revised edition. March 25, 1903.

No. 30. The periodical cicada in 1898. By E. A. Schwarz. pp. 3. April 1, 1898. Out of print.

No. 31. The striped cucumber beetle (*Diabrotica vittata* Fab.). By F. H. Chittenden. pp. 7, figs. 2. April 26, 1898. Out of print.

Same, revised edition. pp. 6, figs. 2. June 9, 1903. Out of print.

Same, second revision. pp. 8, figs. 2. Issued May 22, 1909.

No. 32. The larger apple-tree borers. By F. H. Chittenden. pp. 12, figs. 3. July 1, 1898. Out of print.

Same, revised edition. pp. 12, figs. 3. August 30, 1902. Out of print.

Same, second revise. pp. 11, figs. 3. April 8, 1905. Out of print.

Same, third revise. pp. 11, figs. 3. Issued December 10, 1907.

No. 33. Remedial work against the Mexican cotton-boll weevil. By L. O. Howard. pp. 6. July 1, 1898. (Supplementary to circulars 18 and 27.) Out of print.

No. 34. House ants (*Monomorium pharaonis* et al.). By C. L. Marlatt. pp. 4, figs. 3. July 6, 1898. Out of print.

Same, revise. pp. 4, figs. 3. Issued June 12, 1907.

No. 35. House flies (*Musca domestica* et al.). By L. O. Howard. pp. 8, figs. 6. July 11, 1898. Out of print. (Superseded by No. 71.)

No. 36. The true clothes moths (*Tinea pellionella* et al.). By C. L. Marlatt. pp. 8, figs. 3. July 18, 1898. Out of print.

Same, revise. pp. 8, figs. 3. Issued January 15, 1908.

No. 37. The use of hydrocyanic-acid gas for fumigating greenhouses and cold frames. By Albert F. Woods and P. H. Dorsett. pp. 10, figs. 3. January 10, 1899. Out of print.

Same, corrected print. (Compare page 8.) pp. 10, figs. 3. January 10, 1899. Out of print.

Same, revised edition. pp. 10, figs. 3. October 2, 1903. Out of print.

Same, second revise. pp. 11, figs. 3. Issued April 3, 1908.

No. 38. The squash-vine borer (*Melittia satyriniformis* Hbn.). By F. H. Chittenden. pp. 6, figs. 2. April 22, 1899. Out of print.

Same, revised edition. pp. 6, figs. 2. November 19, 1903. Out of print.

Same, second revise. pp. 6, figs. 2. Issued September 3, 1908.

No. 39. The common squash bug (*Anasa tristis* De G.). By F. H. Chittenden. pp. 5, figs. 3. May 5, 1899. Out of print.

Same, revised edition. pp. 5, figs. 3. March 23, 1905. Out of print.

Same, second revise. pp. 5, figs. 3. Issued July 28, 1908.

No. 40. How to distinguish the different mosquitoes of North America. By L. O. Howard (with synoptical tables of the North American mosquitoes: by D. W. Coquillett). pp. 8, figs. 3. February 20, 1900. Out of print.

No. 40. Second print. pp. 8, figs. 3. [1901.] Out of print.
No. 41. Regulations of foreign governments regarding importation of American plants, trees, and fruits. By L. O. Howard. pp. 4. August 24, 1900.
No. 42. How to control the San Jose scale. By C. L. Marlatt. pp. 6. October 22, 1900. Out of print.
Same, revised. pp. 6. May 17, 1902. Out of print.
Same, second edition. May 26, 1902. Out of print.
Same, third edition. April 6, 1903. Out of print.
Same, fourth edition. pp. 8. March 10, 1906. Out of print.
Same, fifth edition. pp. 7. [March 31] 1909.
No. 43. The destructive green pea louse (*Nectarophora destructor* Johns.). By F. H. Chittenden. pp. 8, figs. 3. May 23, 1901. Out of print.
Same, second edition [entitled "The pea aphis (*Macrosiphum pisi* Kalt.)"]. pp. 10, figs. 7. Issued February 25, 1909.
No. 44. The periodical cicada in 1902. By W. D. Hunter. pp. 4, figs. 2. March 13, 1902. Out of print.
No. 45. A new nomenclature for the broods of the periodical cicada. By C. L. Marlatt. pp. 8. May 1, 1902. Out of print.
No. 46. Hydrocyanic-acid gas against household insects. By L. O. Howard. pp. 6. June 22, 1902. Out of print.
Same, revised edition. pp. 7. Issued February 20, 1907. Revised by C. L. Marlatt.
No. 47. The bedbug (*Cimex lectularius* Linn.). By C. L. Marlatt. pp. 8, figs. 3. June 15, 1902. Out of print.
Same, revised edition. pp. 8, figs. 3. Issued February 26, 1907.
No. 48. The house centipede (*Scutigera forceps* Raf.). By C. L. Marlatt. pp. 4, figs. 2. June 10, 1902.
No. 49. The silver fish (*Lepisma saccharina* Linn.). By C. L. Marlatt. pp. 4, figs. 2. June 20, 1902.
No. 50. The white ant (*Termes flavipes* Koll.). By C. L. Marlatt. pp. 8, figs. 4. June 30, 1902. Out of print.
Same, revised edition. pp. 8, figs. 4. Issued January 27, 1908.
No. 51. Cockroaches. By C. L. Marlatt. pp. 15, figs. 5. June 23, 1902. Out of print.
Same, revised edition. pp. 14, figs. 5. Issued June 23, 1908.
No. 52. The lime, sulphur, and salt wash. By C. L. Marlatt. pp. 8. February 20, 1903. Out of print.
Same, second edition. March 18, 1904. Out of print.
No. 53. The yellow-winged locust (*Camnula pellucida* Scudd.). By C. B. Simpson. pp. 3, fig. 1. May 12, 1903.
No. 54. The peach-tree borer (*Sannina exitiosa* Say). By C. L. Marlatt. pp. 6, fig. 1. October 19, 1903.
No. 55. Powder-post injury to seasoned wood products. By A. D. Hopkins. pp. 5, fig. 1. November 20, 1903.
No. 56. The most important step in the cultural system of controlling the boll weevil. By W. D. Hunter. pp. 7. October 10, 1904. (Superseded by No. 95.)
No. 57. The greenhouse white fly (*Aleyrodes vaporariorum* Westw.). By A. W. Morrill. pp. 9, fig. 1. February 15, 1905.
No. 58. Report on the gypsy moth and the brown-tail moth, July, 1904. By C. L. Marlatt. pp. 12, pl. 1, map 1. March 21, 1905. Out of print.
No. 59. The corn root-worms. By F. H. Chittenden. pp. 8, figs. 3. March 23, 1905.
No. 60. The imported cabbage worm (*Pontia rapæ* Linn.). By F. H. Chittenden. pp. 8, figs. 6. April 28, 1905.

No. 61. Black check in western hemlock. By H. E. Burke. pp. 10, figs. 5. May 24, 1905.

No. 62. The cabbage hair-worm. By F. H. Chittenden. pp. 6, fig. 1. May 17, 1905. Out of print.

Same, revised edition. pp. 6, fig. 1. Issued July 28, 1908.

No. 63. Root-maggots and how to control them. By F. H. Chittenden. pp. 7, figs. 5. June 6, 1905. Out of print.

Same, second edition. pp. 7, figs. 5. February 12, 1906.

No. 64. The cottony maple scale (*Pulvinaria innumerabilis* Rathvon). By J. G. Sanders. pp. 6, figs. 4. September 7, 1905.

No. 65. The cotton red spider (*Tetranychus gloveri* Bks.). By E. S. G. Titus. pp. 5, figs. 2. October 30, 1905.

No. 66. The joint-worm (*Isosoma tritici* Fitch). By F. M. Webster. pp. 5, figs. 5. October 20, 1905. Out of print.

Same, revised edition. pp. 7, figs. 6. Issued September 21, 1908.

No. 67. The clover root-borer (*Hylastinus obscurus* Marsham). By F. M. Webster. pp. 5, figs. 4. December 28, 1905.

No. 68. The tobacco thrips and remedies to prevent "white veins" in wrapper tobacco (*Euthrips nicotianæ* Hinds). By W. A. Hooker. pp. 5, figs. 2. February 26, 1906.

No. 69. Some insects affecting the production of red clover seed. By F. M. Webster. pp. 9, figs. 8. April 12, 1906.

No. 70. The Hessian fly (*Mayetiola* [*Cecidomyia*] *destructor* Say). By F. M. Webster. pp. 16, figs. 16. April 14, 1906.

No. 71. (Revision of Circular No. 35.) House flies (*Musca domestica* et al.). By L. O. Howard. pp. 9, figs. 9. March 27, 1906. Out of print.

Same, revised edition. pp. 10, figs. 9. September 21, 1906.

No. 72. Key to the known larvæ of the mosquitoes of the United States. By Harrison G. Dyar. pp. 6, fig. 1. April 27, 1906.

No. 73. The plum curculio (*Conotrachelus nenuphar* Herbst). By Fred Johnson and A. A. Girault. pp. 10, figs. 5. April 14, 1906.

No. 74. The periodical cicada in 1906. By C. L. Marlatt. pp. 5, figs. 3. April 16, 1906.

No. 75. Requirements to be complied with by nurserymen or others who make interstate shipments of nursery stock. By A. F. Burgess. pp. 6. July 5, 1906. Out of print.

Same, revised edition. pp. 7. Issued July 24, 1908. Out of print.

Same, second revision. pp. 9. Issued August 7, 1909.

No. 76. List of publications of the Bureau of Entomology. Compiled by Mabel Colcord. pp. 21. September 24, 1906. Out of print.

Same, revised to March 1, 1908. pp. 28. Out of print.

Same, revised to May 1, 1909, pp. 29. Out of print.

Same, revised to February 1, 1910. pp. 32.

No. 77. Harvest mites, or "chiggers." By F. H. Chittenden. pp. 6, figs. 3. September 29, 1906.

No. 78. The slender seed-corn ground-beetle (*Clivina impressifrons* Lec.). By F. M. Webster. pp. 5, figs. 2. October 4, 1906. Out of print.

No. 79. The brood diseases of bees. By E. F. Phillips. pp. 5. October 3, 1906.

No. 80. The melon aphis (*Aphis gossypii* Glov.). By F. H. Chittenden. pp. 16, figs. 6. November 14, 1906.

No. 81. The aphides affecting the apple. By A. L. Quaintance. pp. 10, figs. 8. Issued March 9, 1907.

No. 82. Pinhole injury to girdled cypress in the South Atlantic and Gulf States. By A. D. Hopkins. pp. 4, fig. 1. Issued January 2, 1907.

No. 83. The locust borer [*Cyllene robiniæ* Forst.] and methods for its control. By A. D. Hopkins. pp. 8, figs. 4. Issued February 19, 1907.

No. 84. The grasshopper problem and alfalfa culture. By F. M. Webster. pp. 10, figs. 8. Issued April 6, 1907.

No. 85. The spring grain-aphis (*Toxoptera graminum* Rond.). By F. M. Webster. pp. 7, figs. 3. Issued March 29, 1907. (See also No. 93.)

No. 86. The corn leaf-aphis [*Aphis maidis* Fitch] and corn root-aphis [*Aphis maidi-radicis* Forbes]. By F. M. Webster. pp. 13, figs. 4. Issued May 6, 1907.

No. 87. The Colorado potato beetle (*Leptinotarsa decemlineata* Say). By F. H. Chittenden. pp. 15, figs. 6. Issued June 3, 1907.

No. 88. The terrapin scale (*Eulecanium nigrofasciatum* Perg.). By J. G. Sanders. pp. 4, figs. 3. Issued May 14, 1907.

No. 89. The periodical cicada in 1907 (*Tibicen septendecim* L., race *tredecim* Walsh-Riley). By C. L. Marlatt. pp. 4, figs. 3. Issued May 14, 1907.

No. 90. The white-pine weevil [*Pissodes strobi* Peck]. By A. D. Hopkins. pp. 8, figs. 6. Issued June 18, 1907.

No. 91. Note on the occurrence of the North American fever tick [*Margaropus* (*Boophilus*) *annulatus* Say] on sheep. By W. D. Hunter. pp. 3. Issued July 3, 1907.

No. 92. Mites and lice on poultry. By Nathan Banks. pp. 8, figs. 6. Issued September 25, 1907.

No. 93. The spring grain-aphis or so-called "green bug" (*Toxoptera graminum* Rond.). By F. M. Webster. pp. 18, figs. 7. Issued August 22, 1907. Out of print.

Same, revised. pp. 22, figs. 10. Issued June 23, 1909.

No. 94. The cause of American foul brood [*Bacillus larvæ*]. By G. F. White. pp. 4. Issued July 29, 1907.

No. 95. (Revision of Circular No. 56.) The most important step in the control of the boll weevil [*Anthonomus grandis* Boh.]. By W. D. Hunter. pp. 8. Issued October 3, 1907. Out of print.

Same, revised edition. pp. 8. Issued September 21, 1908.

Same, French edition. pp. 11. Issued January 21, 1909.

No. 96. The catalpa sphinx (*Ceratomia catalpæ* Bdv.). By L. O. Howard and F. H. Chittenden. pp. 7, figs. 2. Issued December 16, 1907.

No. 97. The bagworm (*Thyridopteryx ephemeræformis* Haw.). By L. O. Howard and F. H. Chittenden. pp. 10, figs. 11. Issued February 6, 1908.

No. 98. The apple-tree tent caterpillar (*Malacosoma americana* Fab.). By A. L. Quaintance. pp. 8, figs. 4. Issued January 28, 1908.

No. 99. The nut weevils.[a] By F. H. Chittenden. pp. 15, figs. 14. Issued March 6, 1908.

No. 100. (In preparation.)

No. 101. The apple maggot or "railroad worm" (*Rhagoletis* [*Trypeta*] *pomonella* Walsh). By A. L. Quaintance. pp. 12, figs. 2. Issued May 4, 1908.

No. 102. The asparagus beetles. By F. H. Chittenden. pp. 12, figs. 7. Issued May 20, 1908.

No. 103. The harlequin cabbage bug (*Murgantia histrionica* Hahn). By F. H. Chittenden. pp. 10, fig. 1. Issued June 20, 1908.

No. 104. The common red spider (*Tetranychus bimaculatus* Harvey). By F. H. Chittenden. pp. 11, figs. 4. Issued January 26, 1909.

No. 105. The rose slugs. By F. H. Chittenden. pp. 12, figs. 5. Issued October 5, 1908.

No. 106. The wheat straw worm (*Isosoma grande* Riley). By F. M. Webster. pp. 15, figs. 13. Issued May 13, 1909.

---

[a] Reprinted from Yearbook of the Department of Agriculture for 1904, pp. 299–310, pls. XXVIII–XXX, figs. 17–26.

No. 107. What can be done in destroying the cotton boll weevil during the winter. By W. D. Hunter. pp. 4. Issued January 12, 1909.

No. 108. House fleas. By L. O. Howard. pp. 4, figs. 2. Issued February 11, 1909.

No. 109. The leopard moth (*Zeuzera pyrina* Fab.). By L. O. Howard and F. H. Chittenden. pp. 8, figs. 2. Issued July 6, 1909.

No. 110. The green-striped maple worm (*Anisota rubicunda* Fab.). By L. O. Howard and F. H. Chittenden. pp. 7, figs. 3. Issued July 10, 1909.

No. 111. Preparations for winter fumigation for the citrus white fly [*Aleyrodes citri* Riley and Howard]. By A. W. Morrill and W. W. Yothers. pp. 12, figs. 4. Issued September 29, 1909.

No. 112. (In preparation.)

No. 113. The chinch bug (*Blissus leucopterus* Say). By F. M. Webster. pp. 27, figs. 8. Issued November 13, 1909.

No. 114. The Euonymus scale (*Chionaspis euonymi* Comstock.) By J. G. Sanders. pp. 5, figs. 2. Issued November 24, 1909.

TECHNICAL SERIES.

No. 1. Revision of the Aphelininæ of North America, a subfamily of Hymenopterous parasites of the family Chalcididæ. By L. O. Howard. pp. 44, figs. 14. 1895. Out of print.

No. 2. The grass and grain joint-worm flies and their allies: A consideration of some North American phytophagic Eurytominæ. By L. O. Howard. pp. 24, figs. 10. 1896. Out of print.

No. 3. Revision of the Nematinæ of North America, a subfamily of leaf-feeding Hymenoptera of the family Tenthredinidæ. By C. L. Marlatt. pp. 135, figs. 10, pl. 1. 1896. Out of print.

No. 4. Some Mexican and Japanese injurious insects liable to be introduced into the United States. pp. 56, figs. 6. 1896. Out of print.

No. 5. A study in insect parasitism: A consideration of the parasites of the white-marked tussock moth [*Hemerocampa* (*Orgyia*) *leucostigma* S. & A.], with an account of their habits and interrelations, and with descriptions of new species. By L. O. Howard. pp. 57, figs. 24. 1897. Out of print.

No. 6. The San Jose scale [*Aspidiotus perniciosus* Comst.] and its nearest allies. A brief consideration of the characters which distinguish these closely related scale insects. By T. D. A. Cockerell. pp. 31, figs. 15. 1897. Out of print.

No. 7. Revision of the Tachinidæ of America north of Mexico. A family of parasitic two-winged insects. pp. 156. 1897. (Corrected index issued December, 1897.) Price 10 cents. Postage 7 cents.

No. 8. Contributions to a monograph of the American Aleurodidæ. By A. L. Quaintance. The red spiders of the United States (Tetranychus and Stigmæus). By Nathan Banks. pp. 79, figs. 16, pls. 8. 1900. Price 10 cents. Postage 4 cents.

No. 9. The life history of two species of plant-lice [*Hormaphis hamamelidis* Fitch and *Hamamelistes spinosus* Shimer] inhabiting both the witch-hazel and birch. By Theo. Pergande. pp. 44, figs. 23. 1901. Price 5 cents. Postage 2 cents.

No. 10. The social organization and breeding habits of the cotton-protecting kelep of Guatemala [*Ectatomma tuberculatum* Oliv.]. By O. F. Cook. pp. 55. 1905. Price 5 cents. Postage 3 cents.

No. 11. A classification of the mosquitoes of North and Middle America. By D. W. Coquillett. pp. 31, fig. 1. 1906. Price 5 cents. Postage 2 cents.

No. 12, Part I. Miscellaneous papers. Catalogue of recently described Coccidæ. By J. G. Sanders. pp. 1–18. June 5, 1906. Price 10 cents. Postage 2 cents.

No. 12, Part II. Miscellaneous papers. Habits and life histories of some flies of the family Tabanidæ. By James S. Hine. pp. iv+19–38, figs. 1–12. August 29, 1906. Price 10 cents. Postage 2 cents.

No. 12, Part III. Miscellaneous papers. A contribution to our knowledge of the Thysanoptera of California. By Dudley Moulton. pp. vi+39–68, pls. I–VI. Issued April 5, 1907. Price 5 cents. Postage 2 cents.

No. 12, Part IV. (Supplement to Technical Series No. 1.) Miscellaneous papers. New genera and species of Aphelininæ, with a revised table of genera. By L. O. Howard. pp. iv+69–88, figs. 13–22. Issued July 12, 1907. Price 5 cents. Postage 1 cent.

No. 12, Part V. Miscellaneous papers. The more important Aleyrodidæ infesting economic plants, with description of a new species [*Aleyrodes howardi*] infesting the orange. By A. L. Quaintance. pp. iv+89–94, figs. 23–24, pl. VII. Issued October 21, 1907. Price 5 cents. Postage 1 cent.

No. 12, Part VI. Miscellaneous papers. A record of results from rearings and dissections of Tachinidæ. By Charles H. T. Townsend. pp. iv+95–118, figs. 25–30. Issued September 18, 1908. Price 5 cents. Postage 2 cents.

No. 12, Part VII. Miscellaneous papers. The orange thrips. By Dudley Moulton. pp. ii+119–122, pl. VIII. Issued February 11, 1909. Price 5 cents. Postage 1 cent.

No. 12, Part VIII. Miscellaneous papers. Biological studies on three species of Aphididæ. By John June Davis. pp. ii+123–168, figs. 31–34. Issued February 20, 1909. Price 10 cents. Postage 2 cents.

No. 12, Part IX. Miscellaneous papers. A new genus of Aleyrodidæ, with remarks on Aleyrodes nubifera Berger and Aleyrodes citri Riley and Howard. By A. L. Quaintance. pp. ii+169–174, figs. 35–36. Issued September 1, 1909. Price 5 cents. Postage 1 cent.

No. 13. A revision of the Tyroglyphidæ of the United States. By Nathan Banks. pp. 34, pls. 6. Issued November 14, 1906. Price 10 cents. Postage 3 cents.

No. 14. The bacteria of the apiary, with special reference to bee diseases. By Gershom Franklin White. pp. 50. Issued November 6, 1906. Price 10 cents. Postage 3 cents.

No. 15. A revision of the Ixodoidea, or ticks, of the United States. By Nathan Banks. pp. 61, pls. 10. Issued June 6, 1908. Price 15 cents. Postage 3 cents.

No. 16, Part I. Papers on Coccidæ or scale insects. The National collection of Coccidæ. By C. L. Marlatt. pp. iii+1–10. Issued April 23, 1908. Price 5 cents. Postage 1 cent.

No. 16, Part II. Papers on Coccidæ or scale insects. New species of Diaspine scale insects. By C. L. Marlatt. pp. ii+11–32, pls. I–IX. Issued August 5, 1908. Price 15 cents. Postage 2 cents.

No. 16, Part III. Papers on Coccidæ or scale insects. Catalogue of recently described Coccidæ. II.[a] By J. G. Sanders. pp. ii+33–60. Issued December 22, 1909. Price 5 cents. Postage 2 cents.

No. 17, Part I. Contributions toward a monograph of the scolytid beetles. I. The genus Dendroctonus. By A. D. Hopkins. pp. xiv+1–164, figs. 1–95, pls. I–VIII. Issued June 30, 1909. Price 25 cents. Postage 7 cents.

No. 18. (In preparation.)

No. 19, Part I. Technical results from the Gipsy Moth Parasite Laboratory. I. The parasites reared or supposed to have been reared from the eggs of the gipsy moth. By L. O. Howard. pp. vi+1–12, figs. 1–7. Issued January 28, 1910. Price 5 cents. Postage 1 cent.

[a] Catalogue of recently described Coccidæ, I, was published as Technical Series 12, Part I.

SPECIAL REPORTS.

Bibliography of the more important contributions to American economic entomology. Prepared by Samuel Henshaw. Part I. The more important writings of Benjamin Dann Walsh. pp. 49. 1889. Out of print.

Bibliography of the more important contributions to American economic entomology. Part II. The more important joint writings of B. D. Walsh and C. V. Riley. pp. 51–96. 1889. Out of print.

Bibliography of the more important contributions to American economic entomology. Part III. The more important writings of Charles Valentine Riley. pp. 97–371. 1889. Out of print.

Bibliography of the more important contributions to American economic entomology. Index to Parts I, II, and III. pp. 1+373–454. 1890. Out of print.

Same, 51st Cong., 1st sess., H. Mis. Doc. 133, serial No. 2768.

Bibliography of the more important contributions to American economic entomology. Part IV. By Samuel Henshaw. The more important writings of Government and State entomologists, and of other contributors to the literature of American economic entomology. A–K. pp. 167. 1895. Out of print.

Bibliography of the more important contributions to American economic entomology. Part V. By Samuel Henshaw. The more important writings of Government and State entomologists, and of other contributors to the literature of American economic entomology. L–Z. pp. 179. 1896. Out of print.

Bibliography of the more important contributions to American economic entomology. Part VI. The more important writings published between June 30, 1888, and December 30, 1896. Prepared under the direction of the Entomologist, by Nathan Banks, Assistant. pp. 273. 1898. Out of print.

Bibliography of the more important contributions to American economic entomology. Part VII. The more important writings published between December 31, 1896, and January 1, 1900. Prepared under the direction of the Entomologist, by Nathan Banks, Assistant. pp. 113. 1901. Price, cloth, 20 cents. Postage 3 cents.

Bibliography of the more important contributions to American economic entomology. Part VIII. The more important writings published between December 31, 1899, and January 1, 1905. Prepared under the direction of the Entomologist, by Nathan Banks, Assistant Entomologist. pp. 132. 1905. Price 10 cents. Postage 3 cents.

UNITED STATES ENTOMOLOGICAL COMMISSION.

[Members of the Commission: C. V. Riley, A. S. Packard, and Cyrus Thomas. The Commission was attached to the United States Geological and Geographical Survey of the Territories, Department of the Interior, until March 3, 1881. The third report of the Commission inaugurated its transfer to the Department of Agriculture. Of the Bulletins, Nos. 1 and 2 were made under direction of the United States Geological and Geographical Survey of the Territories (Hayden); Nos. 3–7 under direction of the Interior Department; none was issued under the Agricultural Department.]

BULLETINS.

No. 1. Destruction of the young or unfledged locusts [*Melanoplus* (*Caloptenus*) *spretus* Uhl.]. pp. 12. 1877. Out of print.

No. 2. On the natural history of the Rocky Mountain locust [*Melanoplus* (*Caloptenus*) *spretus* Uhl.], and on the habits of the young or unfledged insects as they occur in the more fertile country in which they will hatch the present year. pp. 14, figs. 10, map 1. 1877. Out of print.

No. 3. The cotton worm [*Alabama* (*Aletia*) *argillacea* Hübn.]. Summary of its natural history, with an account of its enemies, and the best means of controlling it; being

a report of progress of the work of the Commission. By C. V. Riley. pp. 111, figs. 81, pl. 1. 1880. Out of print.

No. 4. The Hessian fly [*Mayetiola* (*Cecidomyia*) *destructor* Say]. Its ravages, habits, enemies, and means of preventing its increase. By A. S. Packard. pp. 43, fig. 1, pls. 2, map 1. 1880. Out of print.

No. 5. The chinch-bug [*Blissus leucopterus* Say]. Its history, characters, and habits, and the means of destroying it or counteracting its injuries. By Cyrus Thomas. pp. 44, figs. 10, map 1. 1879. Out of print.

No. 6. General index and supplement to the nine reports on the insects of Missouri. By Charles V. Riley. pp. 177. 1881. Out of print.

No. 7. Insects injurious to forest and shade trees. By A. S. Packard. pp. 275, figs. 100. 1881. Out of print.

REPORTS.

First annual report, for the year 1877, relating to the Rocky Mountain locust [*Melanoplus* (*Caloptenus*) *spretus* Uhl.] and the best methods of preventing its injuries and of guarding against its invasions, in pursuance of an appropriation made by Congress for this purpose. With maps and illustrations. pp. xvi+177+294, figs. 111, pls. 5, maps 2. 1878. Out of print.

Second report, for the years 1878 and 1879, relating to the Rocky Mountain locust [*Melanoplus* (*Caloptenus*) *spretus* Uhl.] and the western cricket [*Anabrus simplex* Hald.], and treating of the best means of subduing the locust in its permanent breeding grounds, with a view of preventing its migrations into the more fertile portions of the trans-Mississippi country, in pursuance of appropriations made by Congress for this purpose. With maps and illustrations. pp. xviii+322+80, figs. 10, pls. 17, maps 7. 1880. Out of print.

Third report, relating to the Rocky Mountain locust, the western cricket, the army worm, canker worms, and the Hessian fly, together with descriptions of larvæ of injurious forest insects, studies of embryological development of the locust and of other insects, and on the systematic position of the Orthoptera in relation to other orders of insects. With maps and illustrations. pp. xiv+347+12+92, figs. 14, pls. 64, maps 3. 1883. Price, cloth, $1. Postage 20 cents.

Same, 47th Cong., 2d sess., H. Mis. Doc. 44, serial No. 2154.

Fourth report, being a revised edition of Bulletin No. 3, and the final report on the cotton worm [*Alabama* (*Aletia*) *argillacea*], together with a chapter on the boll worm [*Heliothis obsoleta* Fab. (*H. armigera* Hübn.)]. By Charles V. Riley. With maps and illustrations. pp. xxxviii+399+147, figs. 45, pls. 64, maps 2. 1883. Price $1.25. Postage 22 cents.

Same, 48th Cong., 2d sess., H. Mis. Doc. 39, serial No. 2325.

Fifth report, being a revised and enlarged edition of Bulletin No. 7, on Insects injurious to forest and shade trees. By Alpheus S. Packard. pp. viii+957, figs. 306, pls. 10. 1890. Out of print.

Same, 51st Cong., 1st sess., H. Mis. Doc. 269, serial No. 2800.

INSECT LIFE.

Vol. I, Nos. 1–12, July, 1888, to June, 1889. Devoted to the economy and life habits of insects, especially in their relations to agriculture, and edited by the Entomologist and his assistants. pp. xxxii+388, figs. 76. 1888–1889. Out of print.

Same, No. 1, July, 1888. pp. 32, figs. 4. 1888. Out of print.

Same, No. 2, August, 1888. pp. 33–62, figs. 5–9. 1888. Out of print.

Same, No. 3, September, 1888. pp. 63–92, figs. 10–12. 1888. Out of print.

Same, No. 4, October, 1888. pp. 93–122, figs. 13–23. 1888. Price 5 cents. Postage 2 cents.

Vol. I, No. 5, November, 1888. pp. 123–162, figs. 24–35. 1888. Price 5 cents. Postage 2 cents.

Same, No. 6, December, 1888. pp. 163–200, figs. 36–45. 1888. Price 5 cents. Postage 2 cents.

Same, No. 7, January, 1889. pp. 201–230, figs. 46–49. 1889. Price 5 cents. Postage 2 cents.

Same, No. 8, February, 1889. pp. 231–260, figs. 50–57. 1889. Price 5 cents. Postage 2 cents.

Same, No. 9, March, 1889. pp. 261–295, figs. 58–66. 1889. Price 5 cents. Postage 2 cents.

Same, No. 10, April, 1889. pp. 297–326, figs. 67–71. 1889. Price 5 cents. Postage 2 cents.

Same, No. 11, May, 1889. pp. 327–357, figs. 72–76. 1889. Price 5 cents. Postage 2 cents.

Same, No. 12, June, 1889. pp. 359–388+xxxii. 1889. Price 5 cents. Postage 3 cents.

Vol. II, Nos. 1–12, July, 1889, to June, 1890. Devoted to the economy and life habits of insects, especially in their relations to agriculture. Edited by C. V. Riley, Entomologist, and L. O. Howard, first assistant, with the assistance of other members of the divisional force. pp. viii+418, figs. 71. 1889–1890. Out of print.

Same, No. 1, July, 1889. pp. 30. 1889. Out of print.

Same, No. 2, August, 1889. pp. 31–60, figs. 1–6. 1889. Out of print.

Same, No. 3, September, 1889. pp. 61–90, figs. 7–10. 1889. Price 5 cents. Postage 2 cents.

Same, No. 4, October, 1889. pp. 91–123, figs. 11–18. 1889. Out of print.

Same, No. 5, November, 1889. pp. 125–162, figs. 19–27. 1889. Price 5 cents. Postage 2 cents.

Same, No. 6, December, 1889. pp. 163–197, figs. 28–35. 1889. Price 5 cents. Postage 2 cents.

Same, Nos. 7 and 8, January and February, 1890. pp. 199–262, figs. 36–56. 1890. Price 10 cents. Postage 3 cents.

Same, No. 9, March, 1890. pp. 263–292, figs. 57–60. 1890. Price 5 cents. Postage 2 cents.

Same, No. 10, April, 1890. pp. 293–333, figs. 61–64 [65]. 1890. Price 5 cents. Postage 2 cents.

Same, Nos. 11 and 12, May and June, 1890. pp. 335–390, figs. 66–71. 1890. Price 10 cents. Postage 3 cents.

Vol. III, Nos. 1–12, August, 1890, to August, 1891. Devoted to the economy and life habits of insects, especially in their relations to agriculture. Edited by C. V. Riley, Entomologist, and L. O. Howard, first assistant, with the assistance of other members of the divisional force. pp. viii+519, figs. 36, pl. 1. 1891. Out of print.

Same, No. 1, August, 1890, with index to Vol. II. pp. 1–41, 393–418, figs. 1–3. 1890. Price 5 cents. Postage 3 cents.

Same, No. 2, September, 1890. pp. 41–87, figs. 4–5. 1890. Price 5 cents. Postage 3 cents.

Same, No. 3, November, 1890. pp. 89–129, figs. 6–19. 1890. Price 5 cents. Postage 3 cents.

Same, No. 4, November, 1890. pp. 131–178, figs. 20–21. 1890. Price 5 cents. Postage 3 cents.

Same, No. 5, January, 1891. pp. 179–250. 1891. Price 5 cents. Postage 3 cents.

Same, No. 6, March, 1891. pp. 251–304, figs. 22–26, Pl. I. 1891. Price 5 cents. Postage 3 cents.

Vol. III, Nos. 7 and 8, April, 1891. pp. 305–357, figs. 27–29. 1891. Price 10 cents. Postage 3 cents.

Same, Nos. 9 and 10, June, 1891. pp. 359–432, fig. 30. 1891. Price 10 cents. Postage 3 cents.

Same, Nos. 11 and 12, August, 1891. pp. 433–519+viii, figs. 31–36. 1891. Out of print.

Vol. IV, Nos. 1–12, October, 1891, to August, 1892. Devoted to the economy and life habits of insects, especially in their relations to agriculture. Edited by C. V. Riley, Entomologist, and L. O. Howard, first assistant, with the assistance of other members of the divisional force. pp. viii+441, figs. 77. 1892. Out of print.

Vol. V, Nos. 1–5, September, 1892, to July, 1893. Devoted to the economy and life habits of insects, especially in their relations to agriculture. Edited by C. V. Riley, Entomologist, and L. O. Howard, first assistant, with the assistance of other members of the divisional force. pp. vii+402, figs. 47, pls. 3. 1893. Out of print.

Vol. VI, Nos. 1–5, November, 1893, to August, 1894. Devoted to the economy and life habits of insects, especially in their relations to agriculture. Edited by C. V. Riley, Entomologist, and L. O. Howard, first assistant, with the assistance of other members of the divisional force. pp. vi+405, figs. 31. 1894. Out of print.

Vol. VII, Nos. 1–5, September, 1894, to July, 1895. Devoted to the economy and life habits of insects, especially in their relations to agriculture. Edited by L. O. Howard, Entomologist, with the assistance of other members of the divisional force. pp. v+448, figs. 48. 1895. Price, bound, 50 cents. Postage 15 cents.

General index to the seven volumes of Insect Life, 1888–1895. pp. 145. 1897. Price 15 cents. Postage 6 cents.

FARMERS' BULLETINS RELATING TO ENTOMOLOGY.

No. 7. Spraying fruits for insect pests and fungous diseases, with a special consideration of the subject in its relation to public health. pp. 20. 1892. Out of print.

No. 19. Important insecticides. Directions for their preparation and use. By C. L. Marlatt. pp. 20. 1894. Out of print.

Same, revised edition. pp. 23. 1895. Out of print.

Same, third revised edition. pp. 32. 1897. Out of print.

Same, fourth revised edition. pp. 32. 1898. Out of print. (Superseded by No. 127.)

No. 45. Some insects injurious to stored grain. By F. H. Chittenden. pp. 24, figs. 18. 1896. Out of print.

Same, revised edition. pp. 24, figs. 18. 1897. Out of print.

No. 47. Insects affecting the cotton plant. By L. O. Howard. Reprinted with revision by the author from Bulletin 33, Office of Experiment Stations. pp. 32, figs. 18. 1897. Out of print.

Same, corrected to April 2, 1909. pp. 20+ii, figs. 12. Issued June 7, 1909.

No. 59. Bee keeping. By Frank Benton. pp. 32, figs. 19. 1897. Out of print.

Same, revised. pp. 48, figs. 19. March, 1905.

No. 61. Asparagus culture. By R. B. Handy. pp. 40, figs. 17. 1897. (Insect enemies. By F. H. Chittenden. pp. 34–39, figs. 14–17.

No. 70. The principal insect enemies of the grape. By C. L. Marlatt. pp. 24, figs. 12. 1898. Out of print.

No. 80. The peach twig-borer [*Anarsia lineatella* Zell.], an important enemy of stone fruits. By C. L. Marlatt. pp. 16, figs. 5. 1898. Out of print.

No. 99. Three insect enemies of shade trees. By L. O. Howard. (Reprinted, with some annotations by the author, from the Yearbook of the Department of Agriculture for 1895.) pp. 30, figs. 11. 1899.

No. 120. The principal insects affecting the tobacco plant. By L. O. Howard. (Reprinted, with slight revision by the author, from the Yearbook of the Department of Agriculture for 1898.) pp. 32, figs. 25. 1900.

No. 127. Important insecticides: Directions for their preparation and use. (A revision of Farmers' Bulletin No. 19.) By C. L. Marlatt. pp. 42, figs. 6. 1901. Out of print.

Same, revised edition. pp. 45, figs. 6. August, 1903.

Same, second revision. pp. 48, figs. 7. April 14, 1908.

No. 130. The Mexican cotton-boll weevil. [*Anthonomus grandis* Boh.] By Frederick W. Mally. pp. 30, figs. 4. 1901. Out of print.

No. 132. The principal insect enemies of growing wheat. By C. L. Marlatt. pp. 38+ii, figs. 25. 1901.

No. 145. Carbon bisulphid as an insecticide. By W. E. Hinds. pp. 28. 1902.

No. 146. Insecticides and fungicides: Chemical composition and effectiveness of certain preparations. By J. K. Haywood. pp. 16. 1902. Out of print.

No. 153. Orchard enemies in the Pacific Northwest. By C. V. Piper. pp. 39, fig. 1. 1902. Out of print.

No. 155. How insects affect health in rural districts. By L. O. Howard. pp. 20, figs. 16. 1902. Out of print.

Same, revised edition. pp. 19, figs. 16. Issued May 19, 1908.

No. 163. Methods of controlling the boll weevil. [Advice based on the work of 1902.] By W. D. Hunter. pp. 16, figs. 2. 1903. Out of print.

No. 165. Silkworm culture. By Henrietta Aiken Kelly. pp. 32, figs. 16. 1903. Out of print.

Same, revised edition. [Revised by C. J. Gilliss.] pp. 32, figs. 15. 1903.

No. 171. The control of the codling moth. [*Carpocapsa pomonella* L.] By C. B. Simpson. pp. 24, figs. 4. 1903. Out of print.

No. 172. Scale insects and mites on citrus trees. By C. L. Marlatt. pp. 43, figs. 34. 1903.

No. 178. Insects injurious in cranberry culture. By John B. Smith. pp. 32, figs. 12. 1903.

No. 189. Information concerning the Mexican cotton boll weevil. By W. D. Hunter. pp. 29+[2], figs. 8. 1904. Out of print.

No. 191. The cotton bollworm: An account of the insect, with results of experiments in 1903. By A. L. Quaintance. pp. 24, figs. 7. 1904. Out of print.

No. 196. Usefulness of the American toad. By A. H. Kirkland. pp. 16. 1904.

No. 209. Controlling the boll weevil in cottou seed and at ginneries. By W. D. Hunter. pp. 31, fig. 1. 1904.

No. 211. The use of Paris green in controlling the cotton boll weevil. By W. D. Hunter. pp. 23. 1904.

No. 212. The cotton bollworm: Some observations and results of field experiments in 1904. By A. L. Quaintance and F. C. Bishopp. pp. 32, figs. 2. 1905. Out of print.

No. 216. The control of the boll weevil, including results of receut investigations. By W. D. Hunter. pp. 32, figs. 5. 1905. Out of print.

No. 217. Essential steps in securing an early crop of cotton. By R. J. Redding. pp. 16. 1905.

No. 223. Miscellaneous cotton insects in Texas. By E. Dwight Sanderson. pp. 24, figs. 29. 1905.

No. 247. The control of the codling moth [*Carpocapsa pomonella* L.] and apple scab. By C. L. Marlatt and W. A. Orton. pp. 21, figs. 9. 1906. Out of print.

Same, revised edition. pp. 23, figs. 9. August, 1906. Out of print.

No. 264. The brown-tail moth [*Euproctis chrysorrhœa* L.] and how to control it. By L. O. Howard. pp. 22, figs. 10. 1906.

No. 275. The gipsy moth [*Porthetria dispar* L.] and how to control it. By L. O. Howard. pp. 22+ii, figs. 7. Issued January 18, 1907.

No. 283. Spraying for apple diseases and the codling moth [*Carpocapsa pomonella* L.] in the Ozarks. By W. M. Scott and A. L. Quaintance. pp. 42+ii, figs. 7. Issued April 29, 1907.

No. 284. Insect and fungous enemies of the grape east of the Rocky Mountains. By A. L. Quaintance and C. L. Shear. pp. 48, figs. 35. Issued May 10, 1907.

No. 290. The cotton bollworm [*Heliothis obsoleta* Fab.]: A summary of its life history and habits, with some results of investigations in 1905 and 1906. By F. C. Bishopp and C. R. Jones. pp. 32, figs. 4. Issued May 10, 1907.

No. 344. The boll weevil problem, with special reference to means of reducing damage. By W. D. Hunter. pp. 46, figs. 8. Issued January 23, 1909.

REPRINTS FROM YEARBOOKS.

1894.

Some scale insects of the orchard. By L. O. Howard. pp. i–iii+249–276, figs. 26–42. August, 1895. (Separate No. 42, Office of Secretary.) Out of print.

The more important insects injurious to stored grain. By F. H. Chittenden. pp. i–iii+277–294, figs. 43–51. August, 1895. (Separate No. 13, Office of Secretary.) Out of print.

1895.

The principal insect enemies of the grape. By C. L. Marlatt. pp. 385–404, figs. 94–105. June, 1896. (Separate No. 43, Office of Secretary.) Out of print.

The shade-tree insect problem in the eastern United States. By L. O. Howard. pp. 361–384, figs. 83–93. July, 1896. (Separate No. 56, Office of Secretary.) Out of print.

1896.

Ambrosia beetles. By Henry G. Hubbard. pp. 421–430, figs. 101–107. July, 1897. (Separate No. 72, Office of Secretary.) Out of print.

The use of steam apparatus for spraying. By L. O. Howard. pp. i–ii+69–88, figs. 1–15, pls. I–II. June, 1897. (Separate No. 73, Office of Secretary.) Out of print.

Insect control in California. By C. L. Marlatt. pp. i–ii+217–236, figs. 51–52, pl. V. July, 1897. (Separate No. 74, Office of Secretary.) Out of print.

The asparagus beetles. By F. H. Chittenden. pp. i–ii+341–353, figs. 84–89. June 1897. (Separate No. 75, Office of Secretary.) Out of print.

1897.

Division of Entomology. By L. O. Howard. pp. i–iii+84–89. May, 1898. (Separate No. 100, Office of Secretary.) Out of print.

The danger of importing insect pests. By L. O. Howard. pp. i–iii+529–552, figs. 25–43. June, 1898. (Separate No. 101, Office of Secretary.) Out of print.

1898.

The principal insects affecting the tobacco plant. By L. O. Howard. pp. i–ii+121–150, figs. 66–82. May, 1899. (Separate No. 138, Office of Secretary.) Out of print.

Insects injurious to beans and peas. By F. H. Chittenden. pp. i–ii+233–260, figs. 66–82. May, 1899. (Separate No. 139, Office of Secretary.) Out of print.

1899.

Progress in economic entomology in the United States. By L. O. Howard. pp. i–ii+135–156, pl. III. August, 1900. (Separate No. 171, Office of Secretary.) Out of print.

1900.

Smyrna fig culture in the United States. By L. O. Howard. pp. i–iv+79–106, figs. 1–7, pls. I–VIII. July, 1901. (Separate No. 196, Office of Secretary.)

The scale insect and mite enemies of citrus trees. By C. L. Marlatt. pp. i–iv+247–290, figs. 9–33, pls. XXVI–XXXI. July, 1901. (Separate No. 207, Office of Secretary.) Out of print.

1901.

Insects as carriers and spreaders of disease. By L. O. Howard. pp. 177–192, figs. 5–20. May, 1902. (Separate No. 235, Office of Secretary.) Out of print.

The present status of the Mexican cotton-boll weevil in the United States. By W. D. Hunter. pp. 369–380, fig. 30. September, 1902. (Separate No. 243, Office of Secretary.) Out of print.

Experimental work with fungous diseases of grasshoppers. By L. O. Howard. pp. 459–470, figs. 40–42. (Separate No. 248, Office of Secretary.)

1902.

The San Jose scale; its native home and natural enemy. By C. L. Marlatt. pp. 155–174, figs. 1–3, pls. XII–XVII. June, 1903. (Separate No. 261, Office of Secretary.)

Some of the principal insect enemies of coniferous forests in the United States. By A. D. Hopkins. pp. 265–282, figs. 23–32, pls. XVIII–XIX. June, 1903. (Separate No. 268, Office of Secretary.)

The principal injurious insects in 1902. By F. H. Chittenden. pp. 726–733. July, 1903. (Separate No. 299, Office of Secretary.) Out of print.

1903.

The United States Department of Agriculture and silk culture. By L. O. Howard. pp. 137–148, pls. VI–X. June, 1904. (Separate No. 313, Office of Secretary.)

The status of the Mexican cotton-boll weevil in the United States in 1903. By W. D. Hunter. pp. 205–214, fig. 10, pls. XVII–XXI. June, 1904. (Separate No. 316, Office of Secretary.) Out of print.

Insect injuries to hardwood forest trees. By A. D. Hopkins. pp. 313–328, figs. 27–43, pl. XXXIX. June, 1904. (Separate No. 327, Office of Secretary.)

The principal injurious insects of 1903. By F. H. Chittenden. pp. 563–566. June, 1904. (Separate No. 335, Office of Secretary.) Out of print.

1904.

Present status of the cotton-boll weevil in the United States. By W. D. Hunter. pp. 191–204, fig. 9, pls. VII–VIII. June, 1905. (Separate No. 341, Office of Secretary.) Out of print.

The nut weevils. By F. H. Chittenden. pp. 299–310, figs. 17–26, pls. XXVIII–XXX. July, 1905. (Separate No. 348, Office of Secretary.) Out of print.

Insect injuries to forest products. By A. D. Hopkins. pp. 381–398, figs. 43–56. June, 1905. (Separate No. 355, Office of Secretary.)

The annual loss occasioned by destructive insects in the United States. By C. L. Marlatt. pp. 461–474. June, 1905. (Separate No. 360, Office of Secretary.)

The principal injurious insects of 1904. By F. H. Chittenden. pp. 600–605. June, 1905. (Separate No. 368, Office of Secretary.) Out of print.

1905.

The gypsy and brown-tail moths and their European parasites. By L. O. Howard. pp. i–iii+123–138, figs. 5, pls. I–II. July, 1906. (Separate No. 373, Office of Secretary.) Out of print.

Insect enemies of forest reproduction. By A. D. Hopkins. pp. i–iii+249–256, figs. 61–69. July, 1906. (Separate No. 381, Office of Secretary.)

The principal insect enemies of the peach. By A. L. Quaintance. pp. i–v+325–348, figs. 82–88, pls. XXVII–XXXIII. July, 1906. (Separate No. 386, Office of Secretary.)

Farm practice in the control of field-crop insects. By F. M. Webster. pp. i–iii+465–476, figs. 111–112, pls. LIV–LV. July, 1906. (Separate No. 396, Office of Secretary.) Out of print.

The principal injurious insects of 1905. Prepared in the Bureau of Entomology. pp. 628–636. August, 1906. (Separate No. 408, Office of Secretary.) Out of print.

1906.

Some recent studies of the Mexican cotton-boll weevil. By W. D. Hunter. pp. i–iii+313–324, fig. 9, pl. XVI. (Separate No. 425, Office of Secretary.)

Lime-sulphur washes for the San Jose scale. By A. L. Quaintance. pp. i–ii+429–446, figs. 15–16, pls. XXXVII–XXXIX. (Separate No. 433, Office of Secretary.)

The principal injurious insects of 1906. Prepared in the Bureau of Entomology. pp. 508–517. 1907. (Separate No. 438, Office of Secretary.) Out of print.

1907.

Notable depredations by forest insects. By A. D. Hopkins. pp. i–iii+149–164. (Separate No. 442, Office of Secretary.)

The value of insect parasitism to the American farmer. By F. M. Webster. pp. i–iv+237–256, figs. 7–30. Separate No. 447, Office of Secretary.)

The codling moth or apple worm. By A. L. Quaintance. pp. i–iii+435–450. (Separate No. 460, Office of Secretary.)

The principal injurious insects of the year 1907. Prepared in the Bureau of Entomology. pp. 541–552. 1908. (Separate No. 472, Office of Secretary.)

1908.

Information about spraying for orchard insects. By A. L. Quaintance. pp. i–ii+267–288, pls. XVI–XX. (Separate No. 480, Office of Secretary.)

Some things that the grower of cereal and forage crops should know about insects. By F. M. Webster. pp. i–iv+367–388, figs. 3–19, pls. XXX–XXXII. (Separate No. 488, Office of Secretary.)

The principal injurious insects of the year 1908. Prepared in the Bureau of Entomology. pp. i–ii+567–580. 1909. (Separate No. 499, Office of Secretary.) Out of print.

YEARBOOK ARTICLES NOT PRINTED SEPARATELY.

Methods of controlling injurious insects, with formulas for insecticides. By C. L. Marlatt. (In Yearbook of the Department of Agriculture, 1894, Appendix, pp. 572–576.)

Methods of controlling injurious insects. (In Yearbook of the Department of Agriculture, 1895, Appendix, pp. 580–586.)

Methods of controlling injurious insects. (In Yearbook of the Department of Agriculture, 1896, Appendix, pp. 617–619.)

Methods of controlling injurious insects. (In Yearbook of the Department of Agriculture, 1897, Appendix, pp. 635–640.)

Methods of controlling injurious insects. By the Entomologist, L. O. Howard. (In Yearbook of the Department of Agriculture, 1898, Appendix, pp. 657–662.)

The principal injurious insects of the year 1899. (In Yearbook of the Department of Agriculture, 1899, Appendix, pp. 745–748.

The principal injurious insects of the year 1900. (In Yearbook of the Department of Agriculture, 1900, Appendix, pp. 725–729.)

The principal injurious and useful insects in 1901. By F. H. Chittenden. (In Yearbook of the Department of Agriculture, 1901, Appendix, pp. 674–679.)

Method of estimating the yield of cotton in the field. By J. C. Crawford. (In Yearbook of the Department of Agriculture, 1904, Appendix, pp. 625–626.

MISCELLANEOUS REPORTS.

[Publications which originated in the Division of Entomology, but which were published in a numbered series of the Secretary's Office or some other office of the Department.]

The silkworm; being a brief manual of instructions for the production of silk. By C. V. Riley. pp. 31. 1879. (Special report No. 11, old series, Office of Secretary.) Out of print.

Same, second edition. pp. 37. 1882. Out of print.

Same, third edition. Out of print.

Same, fourth edition. pp. 37. 1883. Out of print.

Same, fifth edition. pp. 37. 1884. Out of print.

Report upon cotton insects. Prepared under the direction of the Commissioner of Agriculture in pursuance of an act of Congress approved June, 1878. By J. Henry Comstock, Entomologist. pp. 511, pls. 3. 1879. Out of print.

Report on insects injurious to sugar cane. By J. Henry Comstock. pp. 11, figs. 3. 1881. (See Special Report No. 35, old series, Division of Statistics.) Out of print.

Catalogue of the exhibit of economic entomology at the World's Industrial and Cotton Centennial Exposition, New Orleans, 1884–1885. pp. 95. 1884.

Insects affecting the orange. Report on the insects affecting the orange and other plants of the citrus family, with practical suggestions for their control or extermination. Made under the direction of the Entomologist. By H. G. Hubbard. pp. 227, pls. 14. 1885. Out of print.

Same, 48th Cong., 2d sess., H. Mis. Doc. 40; serial No. 2326. Out of print.

The insectivorous habits of the English sparrow. By C. V. Riley. pp. 111–113. 1889. (Reprinted from Bulletin No. 1, Division of Ornithology and Mammalogy. Price 25 cents. Postage 10 cents.) Reprint out of print.

The ox-bot in the United States. By C. V. Riley. pp. 16, figs. 55. 1892. Price 5 cents. Postage 1 cent.

Report on a small collection of insects made during the Death Valley expedition. By C. V. Riley. List of Diptera from Death Valley, California, and adjoining regions. By S. W. Williston. Hemiptera and Heteroptera of the Death Valley expedition. By P. R. Uhler. pp. 235–268. 1893. (Reprinted from North American Fauna, No. 7, Division of Ornithology and Mammalogy.) Out of print.

Studies of parasitic and predaceous insects in New Zealand, Australia, and adjacent islands. Made by A. Koebele, by permission of the Secretary of Agriculture, at the request of the California State board of horticulture. pp. 39. 1893. (Report No. 51, Office of Secretary.) Out of print.

Report on the insect food of the crow. By E. A. Schwarz. pp. 57–67. 1895. (Reprinted from Bulletin No. 6, Division of Biological Survey.) Out of print.

Insects affecting the cotton plant. By L. O. Howard. pp. 317–350, figs. 9–29, pls. 4. 1896. (Reprinted from Bulletin No. 33, Office of Experiment Stations. Price 35 cents. Postage 13 cents.) Reprint out of print. (Reprinted again with revision as Farmers' Bulletin No. 47.)

Proceedings of the national convention for the suppression of insect pests and plant diseases by legislation. Held at Washington, D. C., March 5 and 6, 1897. Edited by B. T. Galloway. pp. 31. 1897. (Report No. 57, Office of Secretary.) Out of print.

Insect enemies of the white pine. By F. H. Chittenden. pp. 55–61, figs. 5–15. 1899. (Reprinted from Bulletin No. 22, Division of Forestry.)

Principal insect enemies of the sugar beet. By F. H. Chittenden. pp. i–vi+157–221, figs. 1–65. 1903. (Reprinted from Report No. 74, Office of Secretary. Price 20 cents. Postage 8 cents.) Reprint out of print.

Insects [of the western hemlock]. By A. D. Hopkins. pp. 16–21, pls. VI–VIII. 1902. (In Bulletin No. 33, Division of Forestry.) Price 20 cents. Postage 5 cents.

Insect enemies of the redwood. By A. D. Hopkins. pp. 32–40, figs. 4. 1903. (In Bulletin No. 38, Division of Forestry.) Price 20 cents. Postage 5 cents.

Methods of work and some results in forest insect investigations. By A. D. Hopkins. pp. 180–182. 1904. (Reprinted from Bulletin No. 142, Office of Experiment Stations. Price 10 cents. Postage 6 cents.) Reprint out of print.

Insects injurious to the basket willow. By F. H. Chittenden. pp. 63–80, figs. 11–27. 1904. (Reprinted from Bulletin No. 46, Bureau of Forestry. Price 15 cents. Postage 4 cents.) Reprint out of print.

An enemy of the cotton boll weevil. By O. F. Cook. pp. 7. May 27, 1904. (Report No. 78, Office of Secretary.) Out of print.

The "maple-worm." By Nathan Banks. pp. 21–23. 1905. (In Bulletin No. 59, Bureau of Forestry.) Price 5 cents. Postage 3 cents.

A practical demonstration of a method for controlling the cattle tick [*Margaropus annulatus* Say]. By W. D. Hunter and J. D. Mitchell. pp. 4. Issued April 19, 1909.
(Circular 148, Bureau of Animal Industry.)

DIVISION OF ENTOMOLOGY, SILK SECTION.

[Discontinued June 30, 1891.]

ANNUAL REPORTS.

Report of the chief of the silk section for 1889. By Philip Walker. pp. i–ii, 453–476. 1889. (Reprinted from Annual Report of the Secretary of Agriculture for 1889.) Out of print.

Report of the chief of the silk section for 1890. By Philip Walker. pp. i–ii, 265–276, pls. 6. 1890. (Reprinted from Annual Report of the Secretary of Agriculture for 1890.) Out of print.

MISCELLANEOUS REPORTS.

The silkworm. Being a brief manual of instructions for the production of silk. 1884. (See Special Report No. 11, old series, Office of Secretary, and Miscellaneous reports, Division of Entomology.) Out of print.

BULLETIN.

No. 1. How to raise silkworms: A brief manual of instructions, abridged from Bulletin No. 9 of the Division of Entomology. By Philip Walker. pp. 16, figs. 10. 1890. Out of print.

UNIVERSITY OF FLORIDA
3 1262 09216 7807

REPORTS ORIGINATING IN THE DEPARTMENT OF AGRICULTURE, BUT PUBLISHED ONLY AS CONGRESSIONAL DOCUMENTS.

50th Cong., 2d sess., S. Mis. Doc. 29; serial No. 2614. Letter of Commissioner of Agriculture, transmitting the report of Joseph Neumann of the result of his study and experiments of the wild native silkworm of California. pp. 5. January 5, 1889. Out of print.

50th Cong., 2d sess., H. Mis. Doc. 135; serial No. 2654. Letter from Commissioner of Agriculture, transmitting report of Women's Silk Culture Association of the United States for the fiscal year 1888. pp. 4. March 2, 1889. Out of print.

51st Cong., 1st sess., H. Ex. Doc. 110; serial No. 2743. Letter from Secretary of Agriculture, transmitting reports upon operations of Women's Silk Culture Association of the United States and of the Ladies' Silk Culture Society of California, and upon experiments made in the District of Columbia with silk-reeling machinery. pp. 30. January 16, 1890. (Includes also report of Joseph Neumann.) Out of print.

51st Cong., 2d sess., H. Ex. Doc. 203; serial No. 2863. Letter from Secretary of Agriculture, transmitting statement of all purchases of cocoons and all sales of silk and silk waste during the fiscal year ending June 30, 1890. Also the reports of the Ladies' Silk Culture Society of California and the Women's Silk Culture Association of the United States. pp. 25. January 24, 1891. Out of print.

PUBLICATIONS OF THE BUREAU OF CHEMISTRY PREPARED IN COLLABORATION WITH THE BUREAU OF ENTOMOLOGY.

BULLETINS.

No. 68. The chemical composition of insecticides and fungicides, with an account of methods of analysis employed. By J. K. Haywood. pp. 62. 1902. Price 5 cents. Postage 3 cents.

No. 76. Insecticide studies. I. Pyrethrum powders containing poisonous metals. II. A compilation of analyses of insecticides and fungicides. III. State laws governing the composition and sale of insecticides. By J. K. Haywood. pp. 63. 1903. Price 5 cents. Postage 3 cents.

No. 82. Paris green spraying experiments. By J. K. Haywood. pp. 32, pls. 2. 1904. Price 5 cents. Postage 2 cents.

No. 101. The lime-sulphur-salt wash and its substitutes. By J. K. Haywood. pp. 29. Issued February 28, 1907. Price 5 cents. Postage 2 cents.

No. 110. Chemical analysis and composition of American honeys, by C. A. Browne, including a microscopical study of honey pollen, by W. J. Young. pp. 93, fig. 1, pls. 6. Issued March 14, 1908. Price 30 cents. Postage 5 cents.

CIRCULAR.

No. 10. Methods for the analysis of insecticides and fungicides. By J. K. Haywood. pp. 8. March 7, 1902. Out of print.

Approved:

JAMES WILSON,

Secretary of Agriculture.

WASHINGTON, D. C., *January 11, 1910.*

[Cir. 76]

○